OFPTHE

VITRBAL PIECE

IN THE:

## JEBERO TANGUAGTE

## Whesis <br> submitted for the

Ph. D. degree
of the Ghiversity of Indon
by
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After the preface, table of contents and list of symbols, an Introductory chepter gives details about the Jebero people and language, including an account of all previously published material, describes the circumstanoes and scope of this present study and summarizes some of the genernl characteristios of the language. The second chapter containing an explanation of the transcription used in the thesis is followed by an outline description of the phonology.

The remainder of the thesis is a grammatical study of the verbal piece considered at different stages of grammatical analysis from the sentence to the morpheme. The function of the verbal piece is first given and this entails a description of the sentence-types found in the material examined since the function of the verbal piece is stated in terms of these sentencertypes. Whe structure of the verbal piece is then taken up and this is set out in terms of the smaller elements of which the verbal piece may be said to be composed, nomely the clause, phrase, and word, exch of which is dealt with in turn.

The validity of the word as a grammatical element is shown and the basis for the establishment of word classes is described. A full description of each word olass follows, giving details concerning stems, roots, and affixes of various classes and subclasses. In this way all the morphemes, words, and laxger units which oan enter into a verbal piece are clessified as members of one or other system of grammatical elements.

Some texts with translations are provided and for the first of these a full grommatical malysis is given. The thesis ends with two appendices and a bibliogxaphy.

This thesis is the first study of an Amerioan Thdion language to be presented as a thesis to London University. As such, it is particulorly significont to aoknowledge that this research has grown out of the vision and interest of Professors J. Re Firth and K. L. Pike, for without their initial suggestions and enoouragement the work would not have been undertaken. In a very real sense the whole project was of their conception. I am greatly indebted to them both not only for my training in desoriptive linguistios but also for their personal interest in this research and for their many helpful suggestions both in London and in the field.

Miy debt to my supervisor, Mr. M. H. Robins, is also very considerable. In partioular his comments throughout the detailed discussion of this material have been invaluable.

Sincere thanks are due to the University of Iondon for a gront from the Uhiversity Central Research Funid to meet the cost of my travelling expenses and also to my colleagues in the Summer Institute of Tinguistics for much help and advice which made it possible to contact and work among this tribe and also for the use of the facilities of the S. I. I. base in the heart of the jungless of Peruvian Amazonia.
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List of symbols of the gramatioal analysis

| A | adverb |
| :---: | :---: |
| a | adjeotive |
| ab | deictio adjective |
| AdSx | adverb derivational suffix |
| AFI | adverb head. |
| AX. | adverb expansion |
| Co | concordial clause |
| Oi | inoluded clause |
| On | non-conoordial clause |
| D | deictio |
| FN | nominel phrase |
| TPA | adverb phrase |
| Pr | relative phrase |
| I | interjection |
| N | nominal |
| n | nown |
| Nasx | nominal derivational suffix |
| NH | nominal head. |
| NP | nominal piece |
| nvSx | non-verbal suffix |
| INX | nominal expansion |
| P | particle |
| p | pronoun |
| PD | deictic particle |
| PF | pause form |
| Px | prefix |
| R | root |
| r | relative |
| nH | relative Head |
| $x \mathrm{X}$ | relative expansion |
| S | stem |
| STI | sentoncemtype |
| STi. | incluăed sentencemtype |
| Sx | suffix |
| V | verb |
| VE | verb extensor |
| VePx | verb expanding prefix |
| VH | veribol head |
| WiSx | verb inflectional suffix |
| Voc | vocative piece |
| VP. | verbal piece |
| Vp | predicative vorb |
| VsPx | verb stem forming prefix |
| VsSx | verb stem forming suffix |
| VX | verbol expansion |
| W | word |
| WSx | word suffix |

The Jebero language is spoken today by about 1,500 people living between the Marañon and Huallaga rivers of North-easterm Peru and concentrated for the most part in and around the village known today as Jeberos at approximately Latitude 5 S . and Iongitude 76 W . This settlement is situated not far from a small river which flows into the river Alpena at a point approximately two days up stream from its junotion with the Huallaga river. This junction is only a very short distance from the junction of the Huallaga and Marañon rivers.

Records conceming the Jebero tribe go back as far as 1638 when they were first visited by Father Iucas de la Cueva. At that time, it seems, they lived in much the same area as now but were much more scattered since he found them one and a half days travel up the Aipena, soattered in small settlements two to six leagues apart, whereas today very few live on the Aipena and there are no such settlements. In 1640 the Jesuit mission founded a settlement on the site of the present village with 2,000 Indians. The number of Jebero speaking people seems: to have been considerably larger then than it is now.

References to the Jebero people and some rather isolated details of their history between 1640 and modern times are found in a number of missionary accounts and historical works of which the most important are listed in the Bibliography. For further details see the Fandbook of South American Indians whioh contains a concise summary of all that is known about this tribe.

Care must be taken not to confuse the Jebero people and language with the much larger group of Jivarod Indians who live to the North and West of them. Unfortunately this confusion has orept into the literature and led D. Brinton to publish a brief but interesting sketch of the Jebero language under the title of 'The Jivaro Language', (sea section 12). The Jebero language and people are very variously referred to as the Xebero, Chebero, Shiwila and Jebero people. The spelling used in Peru today is adopted here.

## 12 <br> The Jebero language

The Jebero language is generally classified as a member of the Gahuapana group of languages of North-ceastem Peru, following the classim fication of Beuchat and Rivet ${ }^{3}$ who suggested replacing the name Maina or Mayna previously used for this group by the name Cahuaprana.

[^0]Steward and Metraux ${ }^{1}$ question the validity of the whole grouping of the languages usually termed Cahuaponan. There is, in fact, quite inadequate linguistic evidence for any classification of these languages into a family. Geographical reasons alone account for the assignment of some of the languages to the Cahuapanan group ${ }^{2}$. It is to be hoped that though linguistic material in many of these languages is completely lacking for the past centuries, the descriptive studies recently begun by members of the Summer Institute of Iinguistios in the surviving languages of Restern Peru will provide a basis for a proper synchronic classification of the members of this and other language families of the whole area. Whethor any valid grouping into families of languages now extinot willl be possible remains unlikely. However, there can be no doubt that a thorough attempt to anolyse and describe the present suxviving languages is an essential prerequisite for ony valid reconstruction of the past and affords the only hope for any such reconstruction.

As far as is known the only Jebero material dating back before the 19th century is in the British Nuseum, where there are two Jebero MSS. The name of the author of these MSS is not given but it seems probable that he was a German Jesuit ${ }^{3}$ who was a member of the Jesuit mission to the Jebero in the second half of the 18th century since he makes references to the pronunciation of German in describing the sounds of Jebero. However, one of the MSS contains material which the author asserts dates from the earliest times of the mission, i.e. the mid 17th century.

The first of these MSS4 is entitled, 'Vooabulario on la Lengua Castellana, la del Ynga, y Xebera'. This MS is complete and has 35 leaves of a small 8 vo size. It begins with a general introduction about the pronunciation of Jebero and then gives the vocabulary and a few more notes at the end. The vocabulary comprises about 1300 Jebero entries, being set out in a double colum, in one column the Spanish word followed immediately by the Inca equivalent and in the other column the Jebero equivalent. The introduction is of considerable interest. It describes the sounds of the language as difficult to a: Buropean and often fluctuating in character. For instance the author states that d, $1, r$ and $h$ are frequently alternated or an indistinct sound is uttered which may approach any one of them. In this way he seems to be attempting to find sounds in Buropean langunges similer to the frictioneless continuant $\bar{\gamma}$, see section 238, sinoe he refers to words which are now found to contain that sound. He comments on $n$ being uttered so slightly as to be scarcely audible and seems to be referring to the feature of glottalizar tion running through the syllable at one point - both features being treated in chapter 3 as prosodic.

The second $N S_{5}$ is incomplete, lacking both the beginning and the end. It is the same small 8 vo siza. It is catalogued as 'Grammatica de la Lengua Xebera', but contains much more than that. It begins with 12 leaves containing a confession, act of contrition, prayers for the administration of the sacraments and the sacrament of marriage in full. These pages are written in a double column, one column being in Ince and. the other in Jebero. There then follow two leaves which the author states are prayers etc. translated by the founder of the mission, Father

1 See 'Hondbook of South American Indians', VoI.3, p. 605.
2 Beuohat and Rivet, for example, list some 30 tribes and sub-tribes as members of the Cohuapana family but give linguistic evidence from three tribes only, one of which is Jebero, see op. cit.
3 Beuchat and Rivet suggest the author was Samuel Pritz a German Jesuit who is said to have written a grammar of Jebero, see op. oit. p. 622.
4 This MS is No. 25323 in the Spanish collection of MSS.
5 This MS is No. 25324 in the Spanish collection of NSSS.

Lucas de la Cueva, in the earliest days of the mission. This section is in Jebero only, without any tronslation, and contains the Lord's prayer, Ave Maria, creed, ten commandments, commandments of the church, a list of sacraments and the general confession. there then follows a statement in Spanish declaring the need to use Jebero as well as Inca because many do not understand Ince. Then come three more pages of prayens etc., covering almost the same ground as the section attributed to Father Lucas de la Cueva, and which evidently represent a later version then in use. This part is in double column again, with Thea and Jebero.

As far as can be judged these different translations seem to be into good Jebero. In fact, in general this materinl compiled by the Jesuits compares very favourably with material recorded at a later date.

After these sections there is a new heading, 'Grarmation de la Lengua Xebera' given in the title of the MSS. This comprises 11 pages. The material is set out under a series or heodings - Noun, declension, plural, Adjectives, Grades of comparisons, Numerals, Pronouns, Relatives, Prepositions and postpositions, Adverbs, Conjunotions, Interjections, the Verb in general, Tense and mood, Future, Imperatives, Subjunctives, Infinitive and Perticiple, Verbs sum, soleo and debeo, Plural, Declension of participle, Gonjugation of verb, Negative Imperatives and Variations (by which he describes bipersonal verb forms).

It was from this material that Brinton published his article 'The Jivaro Language', I which comprises some general remarks on the Jivaros, references to these MSS, a. brief sketoh of some aspects of Jebero based on them, namely paragraphs entitied, Phonetios, Nouns, Pronouns, Number and Gender, Numerals, Partioiples, Verbs. His artiole ends with the two versions of the Lord's prayer of the British Museum MSS and a vocabulary of some 193 entries taken from the same source. The one omission on Brinton's part is the complete lack of referenoe to the other translated material in Jebero in the original document.

Three documents containing Jebero material date from the 19 th oentury. In 1873 Jomes Orton crossed South America. by way of the Amazon and recorded on route very brief word lists of 15 Indian languages. He has 14 Jebero words in his book published in $1876^{2}$.

Antonio Reimondi in an article published in 1863 gives the jebono numerals one to five. Beuchat and Rivet used the published material of Brinton, Orton and Raimondi in their article on the Cahuapana family already referred to.

The third 19th Century document is an anonymous MS in the Nationol Library of Rio de Joneiro. It was written in French, and is first referred to by Rivet and Tostevin ${ }^{4}$ in 1931.

In 1922 Tastevin recorded a vocabulary of Jebero from informants who came from the river Aipena. phis matexial, together with the MS in the Brazil Library is used by Rivet and Tastevin in their artiole. In this article the authors give a grommatical sketch of Jebero of some 14 pages and a vocabulary of 29 pages. The material is weak phonetioally, and there are many mistakes in the grammatioal outline, e.g. the 2nd person singular actual form is given as -kör or mker, whereas this form is really the ind person singular imperative, $\$ 7432$. However, the general conolusion of Rivet and Rastevin that the Tebero langunge has changed little since the 17 th Century seems validi.

1 In the Proceedings of the Americon Philosophical Society, Vol. 30 , Philadelphia, 1892, pp.59-67.
2 'The Andes and the Amazons; or Across the Continent of South Amerioa', IFew York, 1876, p.473.
3 'On the Indian tribes of the great district of Ioreto in Northern Peru', the Anthropological Review, Vol.1, 1863, p. 33.
4 'Nourelle contribution ì I'étude du groupe Kahuapana', I.J. A. Is. Vol. 6 , 1981. pp.227-271.

In 1925 the enthropologist Tessmen visited Jeberos and Iater published details of their material and social culture. At the end of his account he hes four paragraphs on Jebero grammar and a vocabulary. He mentions the pluxal suffix, the possessive suffixes, the conjugation of the verb and makes three attempts to give examples of the verb 'to be'. The word list comprises 233 words which he sought to get from a number of tribes in Peru and he also gives 17 additional words in Jebero. In common with all the other Jebero matorial already mentioned he does not record the glottal stop or any glottal feature which is a serious lack since this is a very common and importent feature in Jebero.

This is not the place to attempt to compare these different documents with enoh other and with the material which was obtained for this present study. It is hoped to do this in another plece since suoh a comparison should be of interest. Indeed, in view of the faot that there is so little recorded material in most of the languages of Anazonia extant from the past such'a comparison should prove well worthwhile.

This thesis is the result of field work which was carried out during the period Ootober 1955 to August 1956. About half of this time was spent in the ohief settlement whioh is named Jeberos, and the other holf at the jungle base of the Summer Institute of Linguistics where work continued with an infommunt. In the course of this stay in Jeberos it weus possible to reeord just over a hundred texts, mostly stories, from some ten persons. The analysis of these toxts and the subsequent discussion of points arising during the analysis, which was possible while living in the village, proved particularly helpful and made it possible for a reasonably full understanding of the language to be gained in whet wh a comparatively brief period.

In anrrying out this work, for various reasons, it was necessaxy to use a number of speakers as language informonts. These men were bilingual speakers, being reasonably fluent in Spanish as well as Jebero. However, the onalysis presented in this thesis is based on the speech of four men in partioular, whose services proved to be more regular than those of others. These men were, Hermenijildo Rojas, Ricardo Ortiz, Carlos Talexio and Eleodor Ortiz. The analysis presented does not in any sense claim to be more than an account of some aspects of the speeoh of these men and especially of the one style of speech which may be termed: 'narrative'. Whough subject to this important double limitation of field, it is hoped that this study will provide material for a proper synchronio comparison of the language with other allegedly Cahuapanan languages and: indeed with other languages of the area, when sufficient material is also available in these other languages. This study should provide details of the grammatical structure in such a way that systems and structures may be compared for typological purposes and should also set out adequate: material for a more informed genetic comparison with other languages.

It is also hoped that the present study may illustrate principles of grammatioal andiysis and, to a lesser extent, of phonological ancliysis which will prove to be of wider application in the analysis of many more of these South American Indian languages. In this connection attention is drawn as much to the analysis as to the language material actually presented in this description.

1 'Die Indianer Nordost Perus', Hanburg, 1.930, pp. 415m440.

The aim of this study may be sumnerised as threefold:
a) to present an analysis of some aspects of the norrative style of speech of four Jebero speakers, and within this delimited ficla to provide an adequate grammetical description which
b) may serve to exemplify principles which may be applied in the presentation of other studies of these South American Indian languages, and
c) may provide a basis for proper synohronic comparison with other languages of this fromily.

Whis thesis is mainly concemed with the analysis at the grammatioal level of the verbal piece in Jebero, i. e. the speech of these four Jebero speokers which will be referred to as 'Jebero' throughout the rest of this thesis. A brief outline of Jebero phonology is also given.

The verbal piece itself is a grommation unit abstracted from the: phonic material and defined in seotion 52. The statement of the verbal piece in Jebero inevitably covers a very large part of the grommatioal structure of the language since Jebero may, with some justification, be called a 'verb' centred' language. Any Jebero text roveals this and statistically it is found that a large proportion of words in a text, generally more than half the total number, are verbs or formed from verb stoms. The verbal piece comprises a much higher percentage of the forms in any text. These points are illustrated in the texts given in chapter 11.

Since the terms 'function' and 'structure' are used in different way: in modern linguistios, their partioular use in this thesis should be stated at the outset. By the funotion of the vorbal piece is meant the distribution of the verbal piece in the sentence and its relations to other pieces in the sentence, e.g. concordial relations between the verbal piece and other pieces. By the structure of the verbal piece is meant the distribution and intermrelations of the various grammatical elements whioh are found functioning within the verbal piece. These elements range from the larger elements such as the clause and phrase, to elements like the word and morpheme which themselves may function as part of the largor elements. The function of any element in this sense is its relation to and distribution with other elements within a larger element. The structure of any element is its composition stated in terms of the grommatical elements whioh funotion within it. Thus the function of any word is stated in terms of the constructions into which it enters and its structure is stated in terms of the classes of morphemes of which it may be composed.

In this way there is set up a hierarchy of levels ${ }^{7}$ of grammatical analysis between the sentence on the one hand and the morpheme on the other, and each element in the hierarohy is described in terms of its funotion - its external distribution as on element within a larger elementand its structure - its internal distribution as an element comprising other grammatical elements. The sentence is the largest piece for which grammatioal statements are made, 842 , and hence in this sense the term grammatical funotion does not apply to it. Similarly the moxpheme is the smallest element fox which it is possible to make stataments at the grammatical level and the tem gramatical structure is therefore in applicable to the morphene.

1 The term 'level' is here used in a moro extended manner thon that employed by Prof. J.R. Firth, since the word is used not only for the main divisions of linguistic analysis, e.g. phonetic, phonological, grommatioal etc. but also for different stages of analysis within each of these main levcls. Thus within the gramatical analysis, which is itself one 'level of anolysis' (in the firthian sense), different levels such as sentence level, clause and phrase level, word lovel, moxpheme level, are recognised in this thesis.

At any one place in the grammatical structure of an element it may be possible to list a number of grammatioal units which may be said to form a closed system of terms applicable at this particular place in the structure. The members of each order of suffixes, for example, constitute such a system, or at a higher levol, within the nominal phrase the members of the adjective submclass of the nominal word class constitute a closed system in that every member may function as subordinate member of the endocentric nominal phrase in the way described in section 55313.

While the grammatical andysis is in no way to be considered as dependent upon the phonological analysis, it is convenient and of value to state congruences between the two levels. 贲he grammationl and phonological descriptions may best be considered separate abstractions from the phonic material at different levels. However, it is sometimes found that the statement of the analysis at one lovel establishes categories that aid the statement of the analysis at the other level. ${ }^{2}$ In view of these considerations and of the desirability of stating certain congrum ences between the two levels as set up in this analysis it seemed useful to include a brief outline of Jebero phonology in this thesis and this will be found to precede the grommatical study which is the main subject of the thesis.

## 14 <br> Some general charnoteristics of Jeboro grammatical structure

At the gramatical level Jebero seems best characterised as, in traditional terms, agglutinative with inflectional elements. The number of formally distinguished parts of speech is small - four in all, the verb, nominal, adverb and particinple. The graat majority of words belong to the first two classes; the number of adverbs and particizies being comparatively very small.

Words may comprise a stem with or without other elements. Word stems may comprise a single element or a variety of elements, but always: include at least one root. Roots may be combined with other roots to form further stems or affixed by class/changing suffixes to form stems of other word classes and this process may be continued through many changes. For exomple, a nominal may be suffixed by a verb-stemforming suffix and then further suffixed by a nominal-stem.forming suffix.

Various types of affixation are found but chiefly suffixation. Prefixation is limited to the verb forms which are also the only word olass which is always found to comprise stem and at least one suffix of an inflectional type. Apart from this extensive series of verbal suffixes the majority of other affixes would not generally be regarded as inflectional. Words may comprise one, two or several, affixes from a large number of such non-inflectional suffixes which are arranged in different classes and sub-classes.

The gramntioal feature which is traditionally termed 'incorporation' is fourd. Verb stons may comprise elements whioh correspond closely to similer forms which function as nominals. The objoct pronominal is also found incorporated, that is to say, verbs are ailways found suffixed by one of a series of suffixes whioh are either unipersonel or bipersonel.

1 For further illustration of the use of the terms system and structure, sec R.H. Robins 'Fomal divisions in Sudanese', T.Pas., 1953, p. 109 and 'Aspects of prosodic analysis' Proc. Univ. Durham Philosoph. Soc. Vol. I Sexies B (Arts) No. 1 1957, p.I.

2 Cf. K.I. Pike 'Granmatical prerequisites of Phonemic Analysis', Word 3, 1947, pp. 155-172 and 'More on Grammtical prerequisites', Word 8, 1952, pp. 106m21.

The person system comprises four terms, first person inclusive, first person exclusive, as well 0.3 second and third person. The number system comprises two terms, singuler and plural, though only the plural is marked morphologically The first person inclucive singular is one menber of the four term aingular series formally, though notionolly s.t would be tomed plural, or more precisely, dual. Formal and semantio oategories are at this point out of phase.

At the syntactical level Jebero sentences may be of a munber of patterns. The majority of sentences are of one or two patterns both of which include a verb. The sentence is always marked by one of a series of intonational pitch pattems.

There is considereble congruence of phonological and grommatical boundaries in Jebero, e.g, the sentence corresponds frequently to the intonation tune, and the word which is primarily a grammatioal unit has also definite phonologioal marks.

All these points will be described in detail at the appropriate place in this study.

```
Chapter Two The transcription
```

2. General remarks
3. The symbols of the transcription

221 Table of symbol.s
23 The phonetic value of the symbols
231. General remaxks

232 Stops
233 Glottalised consonants
234 Siinilants
235 Flap
236 Laterals
237 Nasals
238 Frictionless continuants
239 Vowels
24 Functuation marks

In this chapter the symbols used in the trarscription of the Jebero materials are set out and their value given. The prunctuation marks are also expleined.

It will be seen that the symbols used comrespond for the most part to the symbols suggested in the I. P. A. chart, excopt that the symbol $\exists$ is used for the palatal lateral which is written as $\boldsymbol{X}$ in I.P.A.

The transcription employed may properly be termed phonemio. It is not a 'narrow' or phonetic transcription, but is designed to serve as a broad reading transcription.

22 The symbols of the transcription

For convenience the symbols employed in this transaription are set out in tabular form. In this way a rough indication of the phonetic value of the symbols is quickly gained and section 23 gives the full phonetic desoription of the sounds which these symbols represent in various environments.

```
Bilabial Dental Palato- Palatal Velar Glottal
                        Alveolar Alveolar
```



In this section a description of the sounds which these symbols represent is giver. Wach symbol will be taken in turn and the different sound.s which it symbolites will be desoribed.

However, certain phonetic features may be stated not just for the sounds represented by the individual symbols but for a series of sounds represented by a corresponding series of symbols. Consequently a more economioal statement of the phonetic value of the various symbols is possible by means of a description which states some phonetic features for series of sounds and their corresponding symbols rather than stating many times features whioh apply to several sounds. In the table in section 22 the symbols of the transcription have been set out so as to group different symbols according to phonetio features which the sounds they ropresent have in common. The following description of the different symbols will, therefore, utiliwe this grouping so as to make statements for series of symbols as well as for individual symbols.

$$
232
$$

There are four stops, each with a different point of articulation:
$p$ is bilabial,
$t$ is dental

- is palatal, produced with the blade of the tongue in palatal position and the tongue tip down behind the bottom teeth, and released with considerable friction moh as an afmicate.
$k$ is velar, fronted before a front vowel, and back before a back vowel.
All the stops are unaspirated and voiceless in al1 phonetic envixonments except that after any nasal. all. stops are voiced. All stops are released, except that $k$ may or may not be released in word final position.

In a sequence of consonants within the woxd $k$ followed by $k$ is realised as a geminated $k$.

Three stops, $p$, $t$ and $c$, may, facultatively, be glottalized in syllables ending - ed. The glottalization of these stops may be contrasted with the glottalized oonsonant $\mathrm{I}_{\mathrm{g}}$. Whereas the glottalized forms of the three stops are limited to the one phonetic environment the glottalized consonant $k$ is not so limited and can never oocur in such an environment since it is always final in the syllable。

Glottalized consonants

The symbols $r^{h}, \mathbb{k}$ and ${ }^{?}$ represent three glottal sounds. These sounds have one feature in common, namely, they all involve closure of the glottis.

I is an alveolar flap with olosure of the glottis momentarily more or less simultaneously with the contact of the tongue and alveolar ridge.
$1 \mathbb{k}$ is a velar stop with closure of the glottis more or less simultaneously with the velar closure. In word final position neither the release of the velar stop nor the opening of the glottis is usually heard.
$?$ is a glottal stop. There is complete closure of the glottis in all phonetio environments except that between vowels the closure may or may not be complete.

234 Sibilants

The symbols $s$ and $\int$ represent two sibilants which contrast in point of articulation as follows:
s is alveolax,
$\int$ is palatomalveolar.
Both sibilants are grooved, voiceless and unaspirated in all phonetic environments.

235 Flap

The symbol $r$ represents a voiced alveolar flap in all phonetio environments.

The symbols 1 and $\not$ represent lateral sounds which contrast in point of articulation as follows:
l. is alveolar,
z is palatal, produced by the blade of the tongue in the palatal region, with the tongue tip down behind the bottom teeth.

The symbols $m, n$, $f$ and $\eta$ represent four nasal sounds which differ in point of articulation as follows:
m is bilabial,
$n$ is dental,
n is palatal, produced with the blade of the tongue in the palatal region, with the tongue tip down behind the bottom teeth,
刀 is velar.
This nasal sexies parallels the stop series described in section 232. All nasals are voiced in all environments.

## 238 Frictionless continuants

The symbols w, d, and $y$ represent three frictionless continuants contrasting as to point of articulation, i, e. point of maximum narrowing in the mouth, as follows:
$w$ is bilabial, with some velarization, i.e. the point of maximum namrowing within the mouth is at the velum,
$\partial$ is alveolar, with tongue tip right down behind the bottom teeth and point of maximum naxrowing being botween the tongue blade and the alveolar ridge,
$y$ is palatal, with point of maximum narrowing being between the tongue blade and palatal region and with tongue tip down.

All three sounds are voiced and unaspirated in all positions.
Lip features mark $w$ and $y$, There is considerable lip-rounding with w , though this varies with the following vowel, being most noticeable with $\partial$ and least with $i$. There is lip spreading with $y$ and this varies with the following vowel, being most noticeable with a and least with $u$. These lip features appear to vary from speaker to speaker.

Slight friction may occasionally be heard with $\partial$, though this does not seem to be determined by any phonetic environment. It should be emphasised that in the vast majority of instances this sound is frictionless.

The symbols $i$, a, $\theta$ and $u$ represent four vowel sounds which contrast in the following manner:
$i$ is close, front and unrounded,
a is open, central and unrounded,
$\theta$ is half-close, central-back and unrounded,
u is close, back and rounded.
For purposes of description these four vowels fall into two groups, $i$, $a$ and $u$ on the one hand and $\theta$ on the other.
i, a and u are always fully voiced and are oral vowels except that when followed. by a nasal within the syllable each vowel is nasalised to a varying extent. The degree of nasalination is most marked when a free form cading with a nasal is suffixed by a further morpheme. These three vowels are also glottalized when a glottalized consonant closes the syllabile. Such glottalization varies considerably, being least apparent within the morpheme and mare extensive at points of
junotion between morphemes. Tenseness also marks these three vowels in such syllables, and $i$ and $u$ are more open in such syllables.

Before a velar sound a is furthor back and rather more close, sometimes being halfmopen, in contrast to open in other environments.

The vowel a contrasts with vowels already described in a number of ways. It is not al.ways fully voiced, being voiced on voiceless in syllables ending with $k$ and voioed in every other phonetic environment. It is never found nasalized nor glottalized. Following w this vowel. is more close and further back than it is in other environments and lip rounding is present.
24. Punctuation marks

The following punctuation marks are employed in the transcription: - , 1 and capital letters.

- is used to marls the end of a sentence.
, is used to mark the beginning and the ending of a clause and of the vooative piece unless the beginning or ending co-incides with the beginning or ending of the sentence itself.
1 is used tim mark stress whenever the stressed syllable is other than the noxmal stressed syllable or when emphatic stress occurs. See section 344 for a fulll discussion of stress.
Capitall letters are used initially to mark the names of places and persons.
Chapter
three
Outline of phonology

31 General remarks
32 The elements of the phonological analysis

33 The syllable

## 331. General remarks

332 The phonematic units system
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345 Palatalization associated with the suffix - 5 a

## 35 Intonation

351 General remarks
352 Simple twos
353 Complex tunes

This outline of Jebero phonology attempts to provide an analysis of the phonological structure to which the great majority of words and sentences may be referred. However, it is not intended to be exhaustive since it is an outline phonological description in a study which is grammatical in emphasis. This limitation is brought out, for example, by the fact that no attempt is made to state the structures of unassimilated loan words, 1 o.f. ${ }^{5} 337$.

One further general point may be made. It seems clear that any more detailed study of Jebero phonology would profit from the establishment of a number of separate phonological systems for the statement of features which are relevant for parts of the material; for example, a study of the prosodic feature of nasalization in the nominal would be most rewarding and such a study might be contrasted with a study of nasalization in the verb, for more detailed statements would be possible if two systems were set up to handle this feature. However, such studies are quite outside the scope of this chapter which does no more than give a general outline which, it is hoped, is completely accurate but in no sense exhaustive.

## 32 <br> The elements of the phonological analysis

The phonological analysis is stated by means of certain elements which are set up for this purpose. These elements are the tune, word, syllable, prosodic feature and phonematic unit. All these elements are elements of the phonological analysis and must not be confused wi.th elements established at another level of statement, e.g. the phonetic or grammatical levels, though the phonological elements may correspond to some elements established at other levels.

All utterances are marked by one of a number of pitch patterns at the phonetic level. The phonological element, the tune, is set up for the statement of these pitch patterns. The tune is concerned with features which may extend over one word or over many words. The tune, which is the largest phonological element, corresponds roughly to the sentence which is the largest grammatical element, 542 , though the congruence of these two elements from these two different levels is by no means complete. $\$ 472$.

The word has status primarily as a gramatical element. However, since erery word is delimited by a phonological mark, stress, 自 3443 , the word though primarily a grammatioal element is also recognised as having phonological status as an element in the phonological analysis. The structure of the word is described in terms of syllables and prosom dic features.

The syllable has status at both the phonological and phonetic levels. The phonetic syllable and the phonological syllable do not always correspond exactly. The alveolar flap in such a word as wanerapałi. 'he is standing' is assigned et the phonological level to the syllable wnom as a prosodic feature, whereas at the phonetic level the flap is the initial consonant of the syllable -ra-, S 3334. Sea also 83434 for further examples of non-congruence between the phonological and the phonetic levels. The structure of the syllable is stated in terms of prosodic features and phone matic units.

1 This term is used in the sense adopted by E.J.A. Henderson 'The phonology of loanwards in some South-east Asian languages', T. P.S.,
 systems, Language, 25, 1949 p. 30.

Prosodic features ${ }^{\text {l }}$ are phonological elements having phonetic exponents which either extend over more than one place in the syllable or have implications over more than one place in the syllable in that they delimit a struoture trom preceding and following structures. Prosodic features may be stated for a sentenoe, a whole woxd, or for some part(s) of a word, for a whole syllable or for some pant(s) of a syllable.

Phonematic units are phonological olements having phonetio exponents which may be referred to one place only in the phonetic structure of the syllable. Phonematic units are of two types, consonantal units and vooalic units, These units will be referred to as $C$ and $V$ units respectively throughout this analysis.

Phonematic units should not be identified with the usual phonemes set up to handle the phonological analysis by many linguists ${ }^{2}$, nor are prosodic features to be equated with the supra-segmental phonemes of phonemic phonological analysis. There will, of course, be some similarity between the phonetic exponents of these two pairs of phonologioal oategories, but since the systems of which they are members are different any attempt to make one for one identifications is bound to be misleading.

## 33 The syllable

## 331 General remarks

The structure of the syllable will be described in terms of two systems, the phonematic units system and the prosodic features system, and three places, initial, medial and final place. It will be seen that syllable initial, medial and final places are kept apart, and different statements are made for the systems, whether prosodic or phonematic, which are stated for these places. 3 Sections 332, 333 and 334 describe these two systerns and three places.

Two types of syllable are distinguished at the phonological level, the simple and complex syllable. The great majority of the syllables in the material examined are referable to the phonological structure of the simple syllable. Furthermore, the two types of syllable are similar in very many respects. For these reasons, the full description of the syllable is made as for the simple syllable and then section 335 adds details applicable to the complex syllable and points out the differences between the two types of syllable.

Certain more conmon extra-systemio syllable patterns are described in section 336 and in section 337 some examples of assimilated loan words are given.

1 See JoR. Firth, 'Sounds and Prosodies', ToP.S. 1948 pp.127-52. For an exposition of the theory of phonological analysis stated in terms of prosodic features and phonematic units and a full bibliography of work done in this field see RaH. Robins 'Aspects of Prosodic Analysis' Proc. Univ. Durham Philosoph. Soc. Vol.I Series B (Arts) No. 11957.
$2 \mathrm{Co}_{0}$ f. Wo $\mathrm{S}_{0}$ Allen, in $\mathrm{B}_{4} \mathrm{~S}_{4} \mathrm{O}_{.}$A. S. Vol. 16, 1954, po556.
3 This is in marked contrast with a phonemic phonologioal analysis in which one overall system is set up. For example, in such an analysis two phoness not in complementary distribution at one point in the structure are assigned to two different phonemes and this distinction is maintained even at those points in the structure where no contrast exists and the two phones are in complementary distribution. The treatment adopted in this thesis, however, would set up different systems for the two points of the structure. It is polysystemic whereas the phonemic treatment is monosystemic.

The phonematic units system is a system of two terms, $C$ and $V$.
Every syllable has a moleus which oonsists of a $V$ unit which is always found in syllable medial place. A syllable may comprise this nucleus alone or a nucleus that is preceded and/on followed by a margin which is always a C unit. Thus four types of syllable are found:
$V$ nucleus alone,
VC nucleus followed by a margin,
CV nucleus preceded by a margin,
CVC mucleus followed and preceded by margin.
Thus it will be seen that every syllable has a. $V$ unit but not every syllable has a G unit.

The most frequently found type of syllable is the third type listed above, namely, CV. Samples of text material suggest that more than 75 per cent of syllables are referable to the structure OV. From 73 per cent to 81 per cent of syllables in different text samples were of this structure. The next most frequently occurring types are the $V$ and OVC structures. $V$ syllables account for about 12 per cent of sample material and CVC for about $\ddagger 0$ per cent. VC syllables are very much more infrequent than the other three types and were found to account for about 1 per cent of the sample material.

Syllables of struoture $\nabla$ and VC are restricted to initial position in the morpheme and generally to initial position in the word as well. The presence of such syllables is, therefore prosodically relevant as a mark of morpheme junction.

Every syllable comprises a medial place in whioh the syllable nucleus, a $V$ unit, functions.

There are four $V$ units which together make up a closed system. The members of this four cerm system are, I, A, U and E. These symbols must not be confused with the symbols of the transoription which have been desoribed in $\$ 239$, i. $e_{0}$, i, a, $u$, and $\theta_{0}$

The phonetic exponents of these four phonological units are vowels with the following qualities:
I - closeness and frontness,
A - openness and centrality,
U - closeness and backness,
E - half-oloseness and central-tomback quality.
These four $V$ units may be set out in the following phonological system:

|  | Front |  | Back |
| :--- | :---: | :---: | :---: |
| Close | $I$ |  | $U$ |
| Half-close |  | B |  |
| Open |  | A |  |

Examples:
Transcription

| luða | 'we' |
| :--- | :--- |
| tokka'zi | 'he ran' |
| j.tol. | 'root' |

Phonological Syllable
CV CV
OVC CV CV
V CVC

V Units
CU CA
CEC CA CI
I CEC

The great majority of syllables comprise an initital place $C$ unit, whether with or without some initial place prosodic feature.

There are eleven $O$ units which together make up a closed system of phonematic units stated for syllable initial place. The members of this
 symbol.s mast not be confused with the symbols $p, t, k, s, f, 1, m, n$, W, $\partial$, and $y$, wioh are described in section 23. The phonetic exponents of these eleven phonological elements are as follows:

P - bilabial stop articulation,
T - dental stop articulation,
K - velar stop articulation,
S - alveolar sibilant articulation,
S - palatal sibilant articulation,
I - alveolar lateral artioulation,
M - bilabial neasal articulation,
N - dental nasal artioulation,
W - bilabial frictionless continuant articulation,
d - alveolar frictionless continuant articulation,
Y - palatal frictionless continuant articulation.
These symbols may be set out in tabular form to inlustrate similarities and contrasts as follows:

|  | Bilabial | Dental-alveolar | Palatal | Velar |
| :--- | :---: | :---: | :---: | :---: |
| Stop | P | T |  | K |
| Sibilant |  | S | S |  |
| Lateral | L |  |  |  |
| Nasal | N |  |  |  |
| Frictionless | N | d | Y |  |
| Continuant | W |  |  |  |

3324 Final place in the syllable

Some syllables comprise a final place in which a C unit is always found, with or without some final place prosodic feature.

There are three $C$ units which together make up a closed system of phonematic units stated for syllable final place. The members of this three-term system are: $k, n$ and n. These symbols must not be confused with the symbols of the transcription which are described in section 23. The phonetic exponents of these three phonological elements are as follows:
$k$ - velar closure which may or may not be released,
y - velar nasal closure,
$n$ - bilabial or dental nasal closure, bilabial when before a syllable with initial $P$, except when r-prosody accompanies the syllable in which $n$ is in final place, dental elsewhere.

CV and $V$ syllables constitute structures in which the category of syllable final place is irrelevant as far as the statement of the phonematic units of the syllable is concerned, though not for the statement of prosodic features of such syllables, 白 3334.

Examples: Phonological Syllable Phonematic Units

| kuða | ${ }^{\text {' we }}$ ' | OV OV |  | KU | 3 A |
| :---: | :---: | :---: | :---: | :---: | :---: |
| tolka 27 i | 'he ran' | OVC CV | CV | TEk | KA |
| pen | 'fire ${ }^{\text {¢ }}$ | OVC |  | $\mathrm{PE} \mathrm{H}_{3}$ |  |
| əncelk | 'hair' | VC OVC |  | En | TEEN |

3331 The system in general

Every type of syllable, irrespective of the phonematic structuring of the syllable, may have one or more prosodic features stated either for the whole syllable or for some part of the syllable,

Three types of syllable prosody are found, namely, prosodies relevant for the whole syllable, prosodies relevant for syllable initial place, and prosodies relevant for syllable final place. These may be set out as follows:

$$
\begin{array}{ll}
\text { Syllable prosodies } & a \text { and } \theta \\
\text { Syllable initial prosodies } & \mathrm{y} \\
\text { Syllable final prosodies } & ?, \mathrm{n} \text { and }
\end{array}
$$

Stress may be regarded as a further prosody of the whole syllable by extensions but since it is also a prosody of the word by implication as it delimits the word, it is a prosody of both word and syllable. For convenience it is described as a word prosody in section $34+$ rather than in this section as a syllable prosody. However, it ghould be noted that this feature is a prosody of both word and syllable.
the following sections describe each of the three types of prosody which are stated for the syllable in turn, section 3332 dealing with prosodies of the whole syllable, section 3333 with syllable initial prosodies and section 3334 describing syllable final prosodies.

3332 Prosodic features of the whole syllable

Prosodic features of centrality and non-centrality are abstracted from the syllable and stated as prosodies of the whole syllable. These two prosodios are termed the owprosody and the a-prosody respectively.

The phonetic exponent of the e-prosody is a central-to-back quality in the syllable whioh may be said to have a focal point at syllable medial place. All syllables whose $V$ nucleus is $E$ are accompanied by the feature of emposody. The phonetic exponent of the a-prosody is absence of this central-to-back quality in the syllable. The focal point of the a-prosody is similarly at syllable medial place, and all syllables whose $V$ nucleus is I, A or $U$ are mariked by the a-prosody. In this Way all syllables of Jebero are assigned to structures containing either an o-prosody or an a-prosody.

These prosodic features though having a fooal point at syllable medial place are not treated as syllable medial prosodies but as prosom dies of the whole syllable because their occurrence has implications for the whole syllable. It is found that all syllables containing the $V$ units I, A or $U$ as their nucleus comprise one type of syllable which contrasts markedly with syllables containing the $V$ unit $\mathbb{E}_{0}$ This contrast is seen in marked differences in the phonological elements, both phonematio and prosodic, which are found at syllable final place according to whether the syllable nucleus is $I, A$ or $U$ on the one hand or $E$ on the other, $\$ 334$.

In certain circumstances it is also found that syllables whose nucleus is $\mathbb{B}$ have the prosodic feature of glottalization extending throughout the syllable whereas no such extens ion is found in syllables whose nucleus is I, A or U, B 3334 . This distinction, then, between the two types of syllable based on the $V$ nucleus may be treated as prosodic in character since it has implications extending throughout the syllable. In the one case the phonetic feature of central-back quality of the $V$ mucleus is the exponent of the prosodic category of $\theta$, while in the other instance the absence of this phonetic feature $i_{s}$ the exponent of the prosodic category of a. The justification for the
ebstraction of these phonetic features as significant features having prosodic function rather than, for example, the features of frontness versus backness, on oloseness contrasted with openness, is to be found in the resulting simplicity and clarity of statements which can be made to cover certain features of the whole syllable and especially of features at syllable final plaoe when this partioular abstraction is made.

Symbols: Syllable prosodies are written in raised position preceding the syllable and other prosodic symbols, the symbols a and $\theta$ being used。

Examples:

Transcription

| kuda | 'we' |
| :--- | :--- |
| tokka?ci | 'he ran' |

Phonological Symbolization ${ }^{1}$

$$
\begin{gathered}
a_{C V}{ }^{a}{ }_{C V} \\
\theta_{C V C}{ }^{a_{C V}}{ }^{a_{C V}}
\end{gathered}
$$

$a_{\text {KU }} a_{\text {TA }}$
$\theta_{\text {THEK }} a_{K A}{ }^{a} I I$

## 3333 Prosodic features of the initial place

One syllable initial prosody is set up, the prosody of palatalization which is symbolized as $\overline{\boldsymbol{j}}$-prosody.

The phonetic exponents of this prosody are the fronting of initial elements in the syllable and the palatalization of certain $C$ units in injitial place, namely, $T, L$, 岑, $N$ and $d$. When both a $y$ mprosody and one of these $C$ units is stated for syllable initial place at the phonetic level there is fronting of the $V$ unit of the syllables and palatalization of the $C$ unit as follows:
y with $T$ m closure with blade of the tongue and hard palate, released with considerable friction,
$y$ with $L$ - Iateral produced with the blade of the tongue in the palatal region.
$y$ with S - closure with blade of the tongue and hard palate released with considerable friction, c.f. $y$ with $\mathbb{T}$,
$y$ with $N$. nasality with closure between the blade of the tongue and palatal region,
$y$ with $a-$ frictionless continuant with point of narrowing being between the blade of the tongue and palatal region. The phonetic exponents of $y$-prosody with $d$ are, thus, similar to the phonetic exponents of $Y$. The distinction between $Y$ and $a$ in the system of initial place phonematic units is neutralized in $y$-prosody syllables.

The combination of the $y$-prosody with these C units is symbolized in the transcription by the letters $c, \exists, c, \tilde{n}$ and $y, \mathbb{S} 23$.

The $y$-prosody is found to be relevant only for syllables with a structure at the phonematic level comprising a $C$ unit in syllable initial place, $i, e$. CV and CVC syllables. The $y$-prosody is found most frequently with syllables whose $V$ nucleus is $I$, though not all such syllables are marked by the y-prosody, nor is the distribution of the $y$-prosody limited to I mucleus syllables.

Symbols: $y$ written in raised position immediately preceding first place in the syllable symbolizes the y-prosody.
I. The phonological symbolization only inoludes symbols already explained and, thus, at the end of each of these sections the symbolization is a little more complete. For the full symbolization see S 3334.

| tokka? | 'he ran' | ${ }^{2} \mathrm{CVC}{ }^{\text {a }}$ OV ${ }^{\text {ay }}$ | $k^{a_{K A}}{ }^{\text {EY }}$ |
| :---: | :---: | :---: | :---: |
| ani | 'it resounded' | $a_{V} a_{C V} y^{\text {a }}$ OV | $a_{I}$ ay $_{\text {IA }} \mathrm{ay}_{\text {NI }}$ |
| iminiz | 'he died' | $\mathrm{ay}_{\text {OV }}{ }^{\text {a }}$ CV ${ }^{\text {ay }}$ CV | $\mathrm{ay}_{\mathrm{TI}}{ }^{\text {a }}$ MI ${ }^{\text {ay }}$ |

## 3334 Prosodic features of the final place

Three syllable final prosodic features are set up, glottalization, r-ness, and nasalization. These three prosodies are symbolized as: ?-prosody, rmprosody and n-prosody respectively.

The phonetic exponents of these prosodies are as follows:
7-prosody:
a) varying degree of glottalization of the vowel in the syllable,
b) complete closure of the glottis after the vowel,
o) glottalization extending throughout the whole syllable in the case of syllables with medial place $E$ and final place $k$ phonematic units.
r-prosody:
a) an alveolar flap when the syllable is followed by any $V$ unit, $\mathrm{P}, \mathrm{K}, \mathrm{S}, \mathrm{M}, \mathrm{W}, \mathrm{n}$ or pause,
b) increased centrality and r-quality of the vowel.
numprosody:
a) varying degree of nasalization of the vowel in the open syllable,
b) either velar closure with nasalization when the syllable is followed by a V untt or by pause,
or varying degree of homorganic closure with nasalization when the syllable is followed by an oral $C$ unit, $\mathrm{i}_{\mathrm{e}} \mathrm{e}$. bilabial closure before $P_{9}$
dental or alveolar before $T, S, J_{1}, S$, and velar closure before $K$ and $W$.

Syllable final prosodies are found to be relevant for any type of syllable irrespective of the phonematio structure including syllables not comprising a $C$ unit in final place, i.e. $C V$ and $V$ syllables.

The ?-prosody is stated for syllables comprising the a-prosody and also for syllables comprising the omprosody only conjointly with the $r$-prosody or with $k$ in final place.

The rmprosody is stated only for syllables having the e-prosody.
The $n$-prosody is stated for syllables having the a-prosody, and for syllables with the emprosody only conjointly with $r$-prosody and peprosody, and then always at the junction of morphernes within the word, S 3433.

Symbols: ?, $r$ and $n$ witten in raised position immediately after syllable final place, symbolize these three prosodio features.

Examples:


The phonological elements already described as relevant for the statement of syllable final place are limited in their occurrence relative to one another. These restrictions can most clearly be stated in terms of the allocation of all syllables to two groups determined by the presence of a or e-prosody.

## 334 Final elements in a-prosody syllables

Syilables marked by the a-prosody may or may not comprise a Cunit in the syllable final place. Syllables comprising a $C$ unit in final place are termed closed syllables and those without such a C unit are termed open syllables.

Open syillables with a-prosody may also comprise either ?-prosody or n-prosody, or both? and n-prosodies. This last structure is found only at junctions of morphemes within the word, \$ 34333.

Closed syllables with amprosody may comprise $C$ units $k$ and $n$. The 2-prosody is found with closed syllables with $k$ as final $C$ unit. No other prosodic features are found to mark syllable final place in syillables of this type. In the material examined there are, in fact, very few closed syllables with a-prosody and almost all of these are within verb forms. The C unit $\eta$ in a-prosody syllables is entirely limited to a group of verb suffixes. A more extensive treatment of Jebero phonology would find definite advantages in separate treatment of the phonological structure of the nominal and of the verb.

These possibilities may be set out in tabular form:

| Syllables | Final Phonematic Unit | Final Prosodic Features |
| :---: | :---: | :---: |
| Open | - | - |
|  | - | -prosody |
|  | - | n-prosody |
| Closed | - | $n$ and ?-prosodies |
|  | k | - |
|  | $\mathfrak{y}$ | -prosody |

Examples:
tolka?zi
'he ran'
${ }^{\ominus} \mathrm{CVC}^{?}$
u’lan
'rain'
ila?nsu"
'that which
open with "-prosod
${ }^{2}{ }_{C V}{ }^{\circ}$
$\mathrm{ay}_{\mathrm{CV}}$
open with ?-prosody
open without prosody
$a_{\mathrm{CV}} \mathrm{V}^{12}$
$a_{V}$
open without
$\mathrm{CV}^{\text {n }}$
open with

$$
\begin{gathered}
a_{G V}{ }^{n} \\
\text { open with }
\end{gathered}
$$ is shot' prosody $n$ and ?-prosodies.

iłampasik
'when he is making a noise'
open without open with open without closed with k prosody n-prosody prosody without prosody

## 3342 Final elements in e-prosody syllables

Open syllables with e-prosody are only found when at least one prosody of syllable final place is found. Such syllables are found with $r, ?$ and $n$-prosodies conjointly at the junction be tween moxphemes within the word. This last type of syllable is limited to certain verbal forms only, \$ 34333 .

Olosed syllables with emprosody may comprise $C$ units $k$, $n$, or $n$. Closed syllables may also have ?mprosody with $k$ as final $C$ unit, and r-prosody with $n$ as final $c$ unit.

This may be set out in tabular form as follows:

| Syllables | Final Phonematic Unit | Final Prosodic Feature |
| :---: | :---: | :---: |
| Open | $\cdots$ | r-prosody |
|  | - | $r$ and $?$-prosodies |
|  | - | $?$ and $n$ mprosodies |
| Closed | $k$ | - |
|  | n | - |
|  | $n$ | - |
|  | k | ?-prosody |
|  | n | r-prosody |

Examples:

closed by k with ?-prosody
closed without prosody
open with ? and r-prosodies

335 The complex syllable

The details given in the immediately preceding sections apply to the vast majority of syllables in the material examined, and all such syllables which are weferable to the structures that have been described are termed simple syllables.

However, some syllables are found which are not referable to such structures and these are termed complex syllables. In all instances complex syllables occur at morpheme junction points in the structure of the words concerned, $\$ 3433$.

Complex syllables are referable to structures described in terms of the same phonematio and prosodio elements already described for simple syllables. All the features which characterige both the simple syllable as a whole, and syllable initial, medial and final place, are found in exactly the same way to be applicable to complex syllables, except that two $V$ units may be assigned to syllable medial place. These two $V$ units function as a rising diphthong with prominence on the second $V$ unit.

Complex syllables are only found at points corresponding to morpheme boundaries, and they are never found within the morpheme. They, thus, have prosodic function as markers of morpheme boundaries, $\$ 3433$.

Examples:

| a sui 9 ñi | 'he did not tie' | $a_{V} a_{C V V}{ }^{2} \mathrm{arr}$ CV |
| :---: | :---: | :---: |
| əncuinlocok | 'I will go and cut' |  |

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 Extra-systemic syilable patternsAn outine of phonology of the type set out here cannot attempt to state exhaustively all the syllable patterns found in Jebero words apart from the main system which does, in fact, account for the vast majority of words. However, two extra-systemic patterns which occur rather more than othex patterms may be stated and some examples of these different types of pattern given.

A few syllables, whose phonematic units are referable to structures already desoribed, comprise prosodic features which are also referable to struotures desoribed exoept that a prosodic feature of labialization is found in syllable initial place. The feature is treated as prosodic because it extends over the whole syllable. This prosodic feature is termed the wnprosody.

The phonetic exponent of whrosody is labialization of the syllable and the phonetic exponent of the initial $C$ unit of the syllable concerned is partioularly labialized. Examples of common words in which this feature is stated are given below.

In as much as words assigned to this phonological structure are, apart from the presence of this w-prosody, entirely referable to the structures already described, it would be possible to treat the w-prosody as an element of the main phonological system, comparable with the $y$-prosody. This has not, in fact, been done because of the comparative infrequency of the structure in the material examined.

Examples:

| kwa | 'I' | ${ }^{\text {aw }} \mathrm{CV}$ |
| :---: | :---: | :---: |
| telkkwa? i | 'he fears' | ${ }^{\ominus} \mathrm{CVC}{ }^{2} \mathrm{aw}_{\text {CVV }}{ }^{2} \mathrm{ay}_{\mathrm{CV}}$ |
| polkwa?la | 'you lie dow' | ${ }^{\ominus} \mathrm{CVC}{ }^{\circ} \mathrm{aw}_{\mathrm{CV}}{ }^{\text {a }} \mathrm{CV}$ |
| pwiñu | 'water pot' | $\mathrm{aw}_{\text {CV }}{ }^{\text {ay }}$ CV |
| kwe? ${ }^{\text {a }}$ a | 'you are heavy' | ${ }^{2 W_{C V}}{ }^{\text {Pr }}{ }^{\text {ay }}$ CV |
| mwo? ${ }^{\text {² }}$ - | 'I am full ${ }^{\prime}$ |  |
| pworapazi | 'he is fishing' | ${ }^{2 w_{C V}}{ }^{\text {Pr }} a_{V}{ }^{\text {a CVV }}{ }^{\text {ay }}$ CV |

## 3362 Syllables with final $Y$

Some syllables are found to be referable to a phonematic structure VC on CVC in which the phonematic unit in syllable final place is $Y$. At the phonetic level there is considerable diphthongization between the pneceding voul and final consonant. The phonematic unit $Y$ only occurs in final place in these extra-systemic syllables.

Alternatively it would be possible to analyse these syllables as referable to a structure comprising two $V$ units and to state that marked prominence is found on the first $V$ unit. Such syllables would have to be distinguished from complex syllables which are always inter-moxphemic with prominence on the second $V$ unit, 8335.

Examples:

| WӨy | 'far off ${ }^{\text {a }}$ OVC |  |  |
| :---: | :---: | :---: | :---: |
| u9nay | 'large: $a_{V}{ }^{\text {a }} \mathrm{a}_{\text {CVC }}$ |  |  |
| aytok | ${ }^{1}$ jungle birod ${ }^{\text {a }}$ VC ${ }^{\text {a }}$ OVC | c.f. Quechua | aytek |
| supay | 'demon' ${ }^{\text {a CVV }}{ }^{\text {COVC }}$ | " | supay |

A few examples of assimilated or partially assimilated loan words are given as these illustrate rather well the phonological structure alxeady desoribed.

Each woxd is given in the Jebero transcription followed by the Spanish or Queohza coxresponding word in brackets.

| aficimor | (animal) | 'animal' |
| :---: | :---: | :---: |
| cinta | (tienda) | 'shop' |
| kampana? | (compana) | 'bell' |
| mərkadu | (mercado) | 'market' |
| misa? | (misa) | 'table' |
| pan | (pan) | 'bread' |
| señula? | (sefiora) | 'lady' |
| simana? | (semana) | ${ }^{\text {t week? }}$ |
| sumpazu? | (sombxero) | 'hat' |
| sundtodu | (soldado) | 'soldier' |
| aroðlada | (arroz) | 'rice ${ }^{\text { }}$ |
| bisinu | (vecino) | ineighbour' |
| putidza | (botella) | "bottle" |
| surinu | (sobrino) | 'nephew' |
| wepur | (vapor) | 'boat' |
| Yurimawa? | (Yurimaguas) | 'Yurimaguas' |

34 The word
34. General remarks

As stated in section 32, the word has status as both a phonological and a grammatical unit, of. 目 $621 .^{2}$

At the phonological level the structure of the word is described in terms of syllables and prosodic features. The following sections deal with both these aspects. Section 342 describes the syllable structure of the word, section 343 deals with the prosodic feature of syllable junction, section 344 with the prosodic feature of stress and section 345 desoribes the prosodic feature of palatalization associated with the non-verbal suffix - $\int a$.

342 Syllabio struoture of the word
34.21 General syllabic structure

The word may comprise from one to ten syllables. In principle words may comprise more than ten syllables, since the grammatical possibilities involve structures of a greater number of syllables, 6 71 and 81. However, in the material examined there were no examples of words with more than ten syllables. In discussion of this material with one informant, examples of words comprising up to fifteen syllables were given by him. But it seems clear that forms of more than ten syllables are outside normal speech. Words of ten syllables are restricted to verb forms. One example of a nominal with nine syllables has been found, and several nominals with eight syllables.

Nost commonly verbs contain four syllables and nominals three syllables. Verbs of two, three, five and six syllables are commonly found and nominals of two, four, and five syllables are also common. Adverbs seldom exceed four syllables and particles rarely comprise more than three syllables.

Of the more than thirty syllable structures possible with the phonologioal elements described in section 33, fourteen syllable structures are found not uncommonly in the material examined though some of these occur very much more frequently than others. The remainder are very severely restricted in their occurrences. These fourteen syllable patterns are as follows:


In principle words may comprise ary of these syllable structures in any combination except for certain restriotions stated belows In faot many combinations are not found as the language does not exhaust all these possibilities. This frot is emphasized when it is stated that over 75 per cent of syllables are referable to only six patterns and within this group of six, three patterms acoount for the great majority of syllables, These three patterns are: $a_{C V} \quad a_{C V} n \quad a_{C V}$.

Certain restrictions on the distribution of syllables within the word are found as follows:
a) All syllables whose phonematic structure is referable to the patterns $V$ and $V O$ are restrioted to morpheme initial position within the word.
b) All syllables of the roots of words of any class which include an r-prosody are final in that root, with the exception of the following roots:

| weran | 'f'ood' and woran | 'take food' |
| :---: | :---: | :---: |
| -pacip- | 'pin dow' e.g. | Fi'poriozi 'he struck and pinned |
| merum | 'be soft' | down' |
| trap? | 'plant' |  |
| utari | 'sister of a man' |  |

3422 Syllable structure and grammatical categories
The forms of certain grammatical categories are foundo be restricted to certain syllable structures. Thus the occurrence of certain syllable structures marks the grammatical status of the word concerned. The main correspondences of this type between the two levels of analysis are set out in the paragraphs below.

Words containing stems comprising a single syllable of the structure $V$ ow VC are always found to be verbs.

Adverb stems are never monosyllabic wile there is only one partiole stem of one syllable and this of aycV structure. Monosyllabic nominal stems are always CV or CVC in structure. Monosyllabic words are almost always nominals. However, verbs comprising a stem of structure CV can be monosyllabic when suffixed by may. Words of more than one syllable can be of any word class.

Verb suffixes fxequently contain an initial syllable of $V$ structure. Non-verbal suffixes never have such an initial syllable (with one exception) but elways contain an initial CV or CVC syllable. Word suffixes also frequently contain an initial syllable of $V$ structure.

## 343 Prosodic features of syllable junction

The phonological features relevant for the statement of syllable junction are treated as prosodic because they have implications for the whole word, not just for one place in any one syllable. Furthermore these features mark the boundaries of grammatical elements and in some instances also mark the grammatical status of the elements, i.e. whether bound or free forms.

3431 The foul types of syllable junction

Four different types of syllable junction are distinguished:
type one - intramorpheme junction, that i.s junction within the morpheme,
type two - intermorpheme junction when neither morpheme is a free form, i.e. junction between syllables of different morphemes when neither morpheme has the granmatical status of word, s 62,
type three - intermorpherne junction when one morpheme is a free form, i.e. junction between syllables of different morphemes when one morpheme has the grammatical status of word,
type four - interword junction, i.e. junction between syllables of different words.

These fourtypes of junction will be referred to as junction one, two, three and four respeotively and will be symbolized as JI, J2, J3 and. J4.

In the following sections the statement of these different types of junction is arranged in semi-tabular form according to the phonolos ical features, whether phonematic or prosodic, which are relevant to both the final syllable of the first morpheme and the initial syllable of the second morpheme. For convenience these statements are arranged in four groups of statement according to the phonematic structure of the two syllables involved in the junction. In section 3432 statements are made for the junction of syllables which comprise $V$ of one syllable followed by initial $C$ in the next syllable, section 3433 sets out features relevant for the junction of $V$ and $V$. Section 3434 states features relevant for the junction of final $C$ and $V$, while section 3435 states features relevant for the junction of final $C$ and initial C 。

The feature of junction is stated in this way rather than by means of a statement of all features of Jl , then all features of J2, etc., because there are many parallels between junction types, and especially types 2, 3 and 4, and these are best presented together. Thus itt is that each section 3432 to 3435 makes statements covering different patterns of all. four junction types.

Since Jl involves no further phonological features than those already stated for the various syllable structures described in section 33, the following sections make little reference to JI. In all paragraphs it may be assumed that the absence of reference to $J 1$ implies the particular pattern of junction under description is found wi.th JI but that no further phonological statement is necessary. When the particular pattern of junction is not found with $J 1$ this will be staced.

Symbolization: Throughout this section and subsequently examples involving junction are represented in the transcription with the junction having taken place. In this section, junction features under disoussion in the particular section in which examples are found are indicated by underlining in the transaription.

## 3432 Junction of $V$ with $C$

Each of the following sections will involve the junction of a syllable with no phonematic unit in final place and with the $V$ unit in medial place consequently the relevant phonematic unit and a syllable with phonematic unit in initial place a 0 unit. However, each section will involve a different feature relevant either for syllable final place of the first syllable or syllable initial place of the second syllable。

No $J 2$ of this structure are marked by any phonological. feature.
A11 J3 of this structure are marked by one of two prosodic features, termed Nasal Junction Prosody and Non-nasal Junction Prosody. The prosody of Nasal Junction has the phonetic exponent of nasal olosure homorganic with the initial $C$ of the second syllable, following the $V$ of the first syllable and preceding the $C$ of the second syllable. The prosody of Non-nasal Junction has the phonetic exponent of the absence of this feature.

Nasal Junction Prosody should be distinguished from n-prosody s 3334. No syllable is found marked by both these prosodies. Syllables which are marked by Nasal Junction Prosody in J3 structure are never found marked by n-prosody. Syllables which are marled by n-prosody are never marked by Nasal Junction Prosody, but always by Non-nasal Junckion Prosody. For other syllables neither n-wprosody nor Nasal Junction Prosody are stated.

Some $J 4$ of this structure are found in rapid speech with the feature of Nasal Junction Prosody. However, words which in J3 patterns axe always marked by Nasal Junction Prosody are found sometimes with and sometimes without this prosodic feature in J4 structures. It seems best, therefore, to state that all J4 structures of this pattern have the potentiality of being marked with one of the two prosodies desoribed above.

Symbols: $\mathbb{N}$ and - written in raised position after syllable final place and any prosodic features symbolize Nasal Junction Prosody and Non-nasal Junction Prosody respectively. The symbol - will not be written after the examples in this section have been given.

Examples:

| J2 | itukuñi | 'he went and said' | $a_{V}{ }^{\text {chemb }}{ }^{n} \mathrm{ay}_{\text {CV }}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| J3 | taserpiku? | 'the old man' |  |  |
|  | suðampoy | 'your husband' | ${ }^{\text {CVV }}{ }^{\text {COV }}{ }^{\text {Na }}$ OVO |  |
|  | ZiPIimpipla | 'he still saw' | $\mathrm{ay}_{\mathrm{CV}}{ }^{2} \mathrm{ay}_{\mathrm{CV}} \mathrm{Na}_{C V}{ }^{9} \mathrm{a}_{\mathrm{CV}}$ |  |
|  | İP\#ima | 'he saw' | ${ }^{\text {ay }} \mathrm{CV}^{2} \mathrm{ay}_{\mathrm{CV}} \mathrm{Na}_{\mathrm{CV}}$ |  |
| J4 | ユ.indin | 'he saw the fire' | $\mathrm{ay}_{\mathrm{CV}}{ }^{?} \mathrm{ay}_{\mathrm{CV}}{ }^{\mathrm{Na}} \mathrm{CVO}$ | [mipzi $\left.\mathrm{m}^{\text {pex }}\right]$ |

34322 $V^{2}$ with

No phonological features besides those already described in section 3334 mark all J2, J3 and J4 of this structure.

Examples:

| J2 | saka?tuli | 'he worked. | $\mathrm{a}_{C V}{ }^{a_{C V}}{ }^{2} \mathrm{a}_{C V}$ | $\mathrm{ay}_{\text {CV }}$ |
| :---: | :---: | :---: | :---: | :---: |
| J3 | nawa? ${ }^{\text {a }}$ | 'belonging to them' | ${ }^{a_{C V}}{ }^{\text {a }}$ CV ${ }^{3} \mathrm{a}_{\text {CV }}$ |  |
| $\mathrm{J}_{4}$ | amana? ka ${ }^{\text {a }}$ i | 'the tiger ate' | ${ }^{a_{V}}{ }^{\text {a }}$ OV ${ }^{\text {a }}$ OV ${ }^{\text {b }}$ | ${ }^{\text {cV }}$ ? |

$34323 \mathrm{~V}^{\mathrm{n}}$ with C

All J1, 2, 3 and some J4 of this structure are marked by the prosodic feature of voicing. The phonetic exponent of this prosody is voicing of the $C$ unit unless that $C$ unit is a sibilant. This prosodic feature is texmed a V-prosody.

All J2 of this structure are marked by a definite closure with nasalization homorganio with the initial $C$ of the second syliable, as described in section 33.

Some examples of $J 3$ of this structure are marked in the same way as J2, i. e, nasal closure homorganic with following $C$ but other examples of $J 3$ are marked by nasalization of the $V$ unit of the first syllable and incomplete olosure with nasaligation homorganic with the initial $C$ of the second syllable. In such instances the less complete the olosure, the more extensive and vigorous the nasalization of the $V$ unit. The degree of closure and parallel degree of nasalization of the $V$ unit seems to correlate with two factors, the style of speech and the exponent of $V$ in the syllable. The more back the exponent of $V$ in the finst syllable the more complete is the nasal closure homorganic with the following $C$ and, conversely, the more front the $V$ the less complete is the closure and the stronger the nasalization of the $V$. Slower styles of speech are marked by more complete closure with nasalization, while conversely the more rapid styles appear to be marked with less complete olosure. One further factor may be mentioned. the grammatioal status of the words concerned. It would seem likely that words of the status if nominal, 目 634, are more frequently marked by incomplete closure etc., than are words of other classes. A more detailed phonological study and statement would profit from an examination of this feature for the nominal as distinct from other words.

The great majority of examples of $\mathrm{J}_{4}$ of this structure are mariced by a velar nasal closure following the funal $V$ of the first syllable, i.e. the same phonetic exponent as is found for this n-prosody before pause, 83334 . However, in rapid speech occasional examples of $\mathrm{J}_{4}$ are found with incomplete closure and naselization of the final $V$ as described for J3.

Symbol: V written in raised position atter syllable final place and any other prosodic feature symbolizes V-prosody.

Examples:

| J2 | kanankuñi pawimpałi | 'he went and found' 'it is laoking' | $\begin{aligned} & a_{C V} a_{O V}{ }^{n V a} C V \\ & a_{C V}{ }^{a y} C V \\ & C V \\ & C V \\ & \end{aligned} y_{C V}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| J3 | nunkek | 'in the canoe' | ${ }^{\text {covV }}{ }^{\text {a }}$ CVC | [nungek] |
|  | nunfa | 'a little oanoe: | $a_{C V}{ }^{n V a_{C V}}$ | [ $n$ up ${ }^{\text {a }}$ ] |
|  | \%3anfa | 'a jittle rain' | $a_{V}{ }^{2} a_{C V}{ }^{n V a_{C V}}$ | [uッã ${ }^{\text {a }}$ |

$34324 \mathrm{~V}^{\mathrm{r}}$ with O

All J2 of this struoture are marlsed by a Y-junction prosody. The ohief phonetic exponent of this prosody is the palatalization of the phonetic exponent of the initial $C$ of the second syllable. A further phonetic exponent is sometimes found, namely, the extension of this $Y$ Reature throughout the final syllable of the first word, the $V$ unit being very much oloser and further front and the initial $C$ unit also sometimes being palatalized. Examples are given below.

All J3 of this structure are also marked by a Y-junction prosody whose phonetio exponent is the palatalization of the phonetic exponent of the initial $G$ of the second syllable. No examples have been found of the phonetic exponent of this prosody extending throughout the first syllable in J3 as is sometimes the case for J2 as described above.

The great majority of examples of J4 of this structure are not marked by any phonologicol feature besides features stated in section 3334, i.e. the phonetio exponent of r-prosody before pause is an alveolar flap. However, in very rapid speech very occasional examples of $J_{4}$ have been found with a Y-junction prosody having the phonetic. exponent of slight palatalizaion of the initial $C$ of the following word.

Symbol: $Y$ writien in raised position between the two syllables symbolizes Y-junction prosody.

Examples:
J2 引iPleosa
wanityozi
wanerm - वेele mis
J3 kuwaponion
cipeca

$$
\begin{aligned}
& \mathrm{ay}_{\mathrm{OV}}{ }^{3}{ }^{0} \mathrm{OV}^{\mathrm{riPa}} \mathrm{OV} \text { 'you came and saw' } \\
& a_{C V}{ }_{C V}{ }^{r}{ }^{Y} \theta_{C V O}{ }^{\circ} a y_{C V} \\
& \text { 'he stood in the water' } \\
& a_{\mathrm{CV}}{ }^{{ }_{\mathrm{CVV}}}{ }^{r}{ }^{\circ}{ }_{\mathrm{CVC}}{ }^{\circ}{ }^{\text {ay }}{ }_{\mathrm{CV}} \\
& a_{C V}{ }^{2} a_{O V} \partial_{C V}^{r y a} O V O \\
& { }^{a y} \mathrm{CV}{ }^{\mathrm{OVV}}{ }^{\mathrm{rra}} \mathrm{OV} \\
& \text {-a* } \\
& \text { bis wifer } \\
& \text { 'little mosquito net' }
\end{aligned}
$$

$34325 \mathrm{~V}^{r^{\circ}}$ with C

The statements made for $J 2, J 3$ and $J_{4}$ in the preceding section 34324 are relevant in an exactly parallel manner for J2, J3 and J4 of this structure with the following additional statoment.

All junctions of this structure are also marked by complete closure of the glottis immediately after the $V$ and before the initial $C$ of the second syllable. In the case of $J_{4}$ this glottal closure is simultaneous with the alveolar flap.

Examples:

| J2 | mə? capazi | 'itt is mipening |  |
| :---: | :---: | :---: | :---: |
|  |  | 'it is dark again' |  |
| J3 | kopa | 'a little manioc' | ${ }^{\circ} \mathrm{CV}{ }^{2} \mathrm{ITa} \mathrm{CV}$ |
|  | iñal ${ }^{\text {a }}$, | 'everyone' |  |

## 3433 Junction of $V$ with $V$

Each of the following sections will involve the junction of a syllable whose final place is not filled by a phonematic unit and in which consequently the $V$ unit in medial place is the relevant phonematic unit, with a syllable whose initial place is not filled by a phonematic unit and in which consequently the $V$ unit in medial place is the relevant phone matric unit. Fiowever, each section will involve a different prosodic feature relevant for one or other of the two syllables.

For all the structuresof this section and sub-sections 34331-5 there are no examples of Jl.

34331 V with V

The junction of two syllables of this structure in the case of $J 2$, J3 and J4 may be realized as either a single simple syllable, a single complex syllable or as a sequence of two simple syllables.

When realized as a single syllable there is one $V$ unit which varies according to the particular $V$ in both the first and second syllable. The following table sets out the $V$ unit of the single simple syllable of the junotion:

Finst syllable
A
A
A I I
$\begin{array}{ll}\mathrm{F} & \mathrm{E} \\ I & I \\ U & U\end{array}$

| $I$ | $A$ | $I$ |
| :--- | :--- | :--- |
| $I$ | $U$ | $I$ |
| $I$ | $U$ | $I$ |


| $U$ | $A$ | $U$ |
| :--- | :---: | :---: |
| $U$ | $E$ | $U$ |
| $U$ | $I$ | $I$ |

This table may be summerized thus: of any two $V$ units, whichever is closer, or, if both $V$ units are equivalent in oloseness, whichever is further front, functions as $V$ unit in these junotions.

This may be diagramned as follows:
front back


Wherever the junction of $V$ with $V$ is a junction of two like $V$ units, the junction is realized as a single $V$ unit of the same quality.

When realized as a complex syllable there are two $V$ units, 8335. In such complex syllables prominence to a greater or lesser extent is on the second $V$ unit and the sequence can be described in phonetic terms as a rising diplithong. The junction of $U$ or $A$ followed by $I$ is more frequently realized with a strongly prominent second $V$ than are other sequences, so much so that in a complex syllable involving $U$ followed by $I$, the phonetic exponent of $U$ appears to have some of the characteristics of the phonetio exponent of $W$, a $C$ unit.

When realized as a sequence of two separate syllables there is a varying degree of diphthongal transition between the two syllables.

The majority of examples of $J 2$ of this structure are realized as a single syllable as described above. However, some examples of J2 are found as a complex syllable. A much smaller number of examples of J2 as a sequence of two syllables also occur and these are found only whenewes the first syllable of the junction is also intial syllable in the word, in whioh case stress falls upon the second syllable of the word which is also the second syllable of the junction and this seems to serve as a feature separating the two syllables.

The majority of examples of $J 3$ of this structure are found to be simple syllables, though examples of complex syllables are not un-. common. No examples of J3 as a sequence of two syllables have been found.

The great majority of examples of J4 of this struoture are found to be sequences of two syllables, though examples of complex syllables are not uncommon. In rapid speech instances of $J_{4}$ as a simple syllable are also foumd ocoasionally. Such instances are limited and they only occur when stress marks a post-initial syllable of the second word.

These statements apply for all junctions involving an open syllable unmarked by any final prosodic feature followed by a syllable with absence of phonematic unit in initial place irrespective of any other phonological feature of that second syllable. Thus pitnotion of the patterns $V$ and $V^{\circ}, V$ and $V^{n}, V$ and $V^{2}, V$ and $V^{r}$, $V$ and $V C$, as well as $V$ and $V$ are marked by patterns as above.

For example, $V$ and $V^{n}$ may be realized as a simple syllable, a complex syllable, or a sequence of two syllables. In all cases after the $V$ unit of the simple syllable or the second $V$ unjt of the complex or two syllable sequence there is nasal closure as described in section 3334. In all these cases the prosodic feature will be stated for the single simple or complex syllable, or for the second syllable of the two syllable sequence.

Examples:


The statements made for $J 2, J 3$ and $J 4$ in the preceding section 34331 are relevant in an exactly parallel manner for J2, J3 and J4 of this structure with the following additional statements.

All junctions of this structure that are realized as simple or complex syllables are also marked by complete closure of the glottis immediately after the $V$ unit( $s$ ) and before the next $C$ unit or pause.

All junctions of this structure that are realized as a sequence of two syllables are also marked by complete dosure of the glottis between the two $V$ units.

These statements apply for all junctions involving an open syllable with final ?-prosody followed by a syllable with absence of phonematic unit in initial place irrespective of any other phonological features of that syllable. Thus junction of the patterns $V^{?}$ and $V^{2}, V^{2}$ and Vn , $V^{?}$ and $V r, V^{2}$ and $V r^{?}, V^{?}$ and $V C$ as well as $V^{?}$ and $V$ are marked by features as described above. However, certain additional statements need to be made as follows.
$V^{9}$ with $V^{2}$
The statements already made for J 3 and $J 4$ in this section, are relevant for $J 3$ and $J_{4}$ of this structure.

Generally examples of J2 are realized as a complex syllable with glottalization to a varying degree throughout the syllable and complete closure of the glottis as already described. When the V units of J2 of this structure are like $V$ units the resulting complex syllable is equivalent to a long $V$ with oonsiderable glottalization throughout with complete closure of the glottis after the $V$ units, and a secondary peak of glottalization sometimes occurring in the midale of the $V$ unito $V^{2}$ with $V^{r}$ and $V^{r}$ with $V^{r}$

In junctions of this structure the closure of the glottis is simultaneous with the alveolar flap or precedes the next $C$ when the r-prosody is realized without an alveoler flap, 83334.
$V^{2}$ with $V^{n}$
In junctions of this structure the closure of the glottis precedes the nasal closure which is homorganic with the next $C$.

Examples:
tokkai mpu? i
tokka- -impun" - -
okponkasu?
okpan- -rtkasu?
J3
asi?na
asu?- -i?na
nenapu"sipla

$$
\begin{aligned}
& { }^{\theta_{C V C}}{ }^{\rho} a_{C V V}{ }^{n}{ }^{?} a_{C V}{ }^{\circ} a^{a y}{ }_{C V} \text { 'he did not }
\end{aligned}
$$

$$
\begin{aligned}
& { }^{\theta_{V C}}{ }^{0} \mathrm{OV}^{2}{ }^{2} a_{C V}{ }^{a_{C V}}{ }^{\circ} \quad \text { 'that which } \\
& { }_{V C O} a_{C V}{ }^{2} \text { of }^{2 r} a_{C V}{ }^{a_{C V}}{ }^{2} \quad \text { they carried } \\
& a_{V} a_{C V}{ }^{2} a_{C V} \quad \text { but this one } \\
& a_{V} a_{C V}{ }^{\circ} a_{V}{ }^{\circ} a_{C V} \\
& { }^{a_{C V}}{ }^{a_{C V}}{ }^{a_{C V}}{ }^{\prime} a_{C V}{ }^{2} a_{C V} \quad \text { 'yet again' } \\
& a_{C V} a_{C V} a_{C V} a_{C V} a^{a_{V}}{ }^{a_{C V}}
\end{aligned}
$$

$34333 \mathrm{~V}^{\mathrm{n}}$ with V

The statements made for $\mathrm{J} 2, \mathrm{~J} 3$ and J 4 in the seotion 34331 are relevant in exactly the same way for $\mathrm{J} 2, \mathrm{~J} 3$ and $\mathrm{J}_{4}$ of this structure with the following additional statements.

Al. 1 junctions of this structure which are found as simple or complex syllables are also marked by complete olosure with nasalization homorganic with the first $C$ unit of the second morpheme. When that $C$ unit is a nasal or when no $C$ unit follows there is strong nasalization of the $V$ unit(s) but no olosure.

All junctions of this struoture which are found as a sequence of two syllables are also maxked by velar closure with nasalization, between the two $V$ units.

These statements apply for all functions involving an open syllable with final n-prosody followed by a syllable with absence of phonematic unit in initial place irrespeotive of any other phonological features of that syllable except that certain additional statements are made for the following structures.
$V^{n}$ wi.th $V^{?}$
In junctions of this structure, closure of the glottis precedes the nasal closure which is homorganic with the next $G_{0}$ Thus this junction is realized in the same way as the junction $V^{\prime}$ and $V^{n}$, 534332 ,
$\mathrm{V}^{\mathrm{n}}$ with $\mathrm{V}^{9 r}$ and $\mathrm{V}^{\mathrm{n}}$ with $\mathrm{V}^{r}$
In junctions of this structure the nasel closure, which is homorgonic with the following $G$, follows the elveolar flap and closure of the glottis whioh i.s simultaneous with the alveolar flap.

## Bxamples:

J2
asumpazi $\quad a_{V}{ }^{a} C V^{n}$ obV ${ }^{a y}{ }_{C V} \quad$ 'he is fastening'
asun- -apa- $\ddagger i$ $a_{V}{ }^{a_{C V}}{ }^{n} a_{V} a_{C V} a_{C V}$

i.lan- -enkasu?

$$
a_{V} a_{O V}{ }^{n} a_{V}{ }^{2 r} a_{C V} a_{C V}{ }^{?}
$$

J3 ulaina $a_{V}{ }^{2} a_{C V V}{ }^{n}{ }^{2} O V$ 'and rain' [a apâima]
uㄱำ- -ima

$$
a_{V}{ }^{?} a_{C V} V^{3+} a_{V} a_{C V}
$$

$34.334 \mathrm{~V}^{\mathrm{s}}$ with V
No phonological features besides those already described in section 3334 mark all J2, J3, and J4 of this structure.


No phonologioal features besides those already desoribed in section 3334 mark all J2, J3 and J4 of this structure.

## Examples:



### 34.34 Junction of C with V

This section will state all the phonological features which apply to the junction of syllables whose final place is filled by a 0 unit with syllables whose initial place is not filled by a phonematic unit and in which consequently the $V$ unit in medial plece is the relevent phonematic unit for the statement of the junction features.

No prosodic features whether relevant for the first or the second of the two syllables involved in the junction, are found to affect the statement of this type of junction.

There are no examples of $J 1$ of this structure.
With all J2, J3 and an occasional J4 of this structure it is noticeable that the phonological syllable does not coincide with the phonetic syllable. There is marked non-oongruence between the phonological and the phonetic syllable. In order to distinguish the phonetic and phonological syllable structure, small $c$ and $v$ are used ecr the phonetic level while large $C$ and $V$ are used for the phonological. level. At the phonetic level the final o of the first syllable functions as the initial o of the second syllable. This resulting syllabification is rot congruent with the phonological syllable structure which states the $c$ in question as the phonetic exponent of a C unit which is in final place in the first syllable. This feature of partial congruence of the phonetic and phonological syllables is illustrated belown

No other statements need to be made for this type of junotion.
Examples:
U2 plonapala $a_{C V}{ }^{\theta_{C V C}}{ }^{a_{V}}{ }^{a_{C V}}{ }^{a_{C V}}$ pil әn- -apa- $-\mathrm{Pa}^{a_{C V}}{ }^{\theta_{\mathrm{CVO}}}{ }^{a_{V}}{ }^{a_{C V}}{ }^{a_{C V}}$ 'you are advising'

| J3 piðolkima | $a_{C V}{ }^{\circ}{ }_{C V C}{ }^{\circ} a^{a_{V}}{ }^{a_{C V}}$ |
| :---: | :---: |
| idok-m -ima | $a_{C V}{ }^{\text {CVO }}$ ( ${ }^{a_{V}}{ }^{a_{O}}$ |

"the house also"
phonetio sylfable division croveycver
phonological and morpholog-

$$
y
$$

J4. Uwok illañi
lhe shot a jungle
hen'
phonetic syllable division oveverov phonological and morphological division
phonetio syllable division
vctovovov phonological and morphologioal division

This type of junction concerns syllables whose final place is filled by a $C$ unit when followed by syllables whose initial place is filled by a C unit.

There are frequent examples of J1, J2, J3 and J4 of this structure.

With J1, J2 and J3, whenever the C unit of the first syllable is $\rightarrow$ or -n a prosodic feature of voicing is found. The phonetic exponen't of this prosody is voicing of the second $C$ unit unless that O unit is a sibilant. This prosodic feature is texmed V-prosody自 34323. Very occasionally in rapid speechJ4 is marked in the sane way.

Whenever the two 0 units are like $C$ units there is gemination. At the phonetic level the lengthening of the $O$ uritit may vary considerably.

In all other instances no phonological features are found which are not already stated in section 33.

## Examples:

JI enkara $a_{V C} V_{C V} a_{C V}$

'you gave'
[ ${ }^{2} \mathrm{gga}$ " la ]
'wait!'
'in the fire' [pengek]
J3 penkek ${ }^{\circ}{ }_{\text {CVC }}{ }^{\mathrm{V}}{ }^{\circ} \mathrm{CVC}$


344 The prosodic feature of stress
34.1 General remarks

The phonological feature termed stress is treated as a prosodic feature because its phonetic exponents extend over more than one phonematic place and because the feature itself has implications for the whole word not just for any one place in any one syllable, e.g. the feature marks out the form as a word, and not just part of a word.

The prosodic feature of stress must not be confused with phonetio stress which is termed prominence in this treatment. The prosodic feature of stress involves other phonetic features besides prominence, and in particular length and pitch.

The exponents of the prosodic feature of stress may extend over more than one syllable but are always focussed on one syllable which is consequently temed the stressed syllable. All statements of stress are made in terms of the stressed syllable.

Three types of stress are distinguished, word stress, word suffix stress and emphatic stress. Sections $3443,34 \mu+$, and 3445 deal with each type of stress in tum. However, since certain phonetic exponents are common to all three types of stress, these will be described first in section 34,2 and not repeated in the detailed desm cription of the three types of stress.

Symbolization: In the examples given in this section stress is symbolized by ' before the stressed syllable, e.g. 'pidolk is stressed on the first syllable, and, the struotural symbolization of this word uses the same device i.e. ${ }^{1} a_{C V} \theta_{C V C}$.

Three phonetic Poatures are exponents of all three types of stress, namely, the features of prominence, length and pitch.

Prominence All stressed syllables are articulated with greater loudness and force of utterance in comparison with other syllables of the word. These phonetio features are termed prominence.

Iength All stressed syllables tend to be longer in duration than comparable unstressed syllables in the word. At the phonetic level the exponent of the $V$ unit of the syllable is longer in duration in stressed syllables, though other parts of the syllable may also be longer in duration then comparable parts in unstressed syllables. Length is a particularly important exponent of emphatic stress, $\$ 3445$, but this phonetio feature is not limited to emphatic stress.

Pitch When the word is spoken in isolation or in sentences marked by pitch patterns which are assigned to tunes $1,2,5,6,7$ or 10 , \& 35, the stressed syllable is higher in pitch than unstressed syllables in the word. In the other tunes the pitch patterns are independent of the stressed syllables. The pitch patterns of the word in isolation may be stated in terms of the feature of stress as follows:
a) all monosyllabic words are manked by a slightly falling pitch,
b) all bi--syllabic words are marked by a higher pitch on the stressed syllable and a lower pitch with slight final fall on the unstressed syllable,
o) all words of three or more syllables are marked by a higher pitich on the stressed syllable and lower pitch on all syllables following the stressed syllable with a tendency for all these syllables to step dow slightly in pitch and for the final syllable to be marked by a definite fall. The pitch of any syllable preceding the stressed syllable is lower in pitch than the stressed syllable but usually a littile higher in pitch than syllables which follow the stressed syllable.

### 344.3 Word stress

All words exoept compound words contain one stressed syllable. Compound words are set up partly on gramatical grounds and partly on phonological grounds, i. $e$. on the basis of this feature of stress, c. f. $\$ 624$.

Except for instances described later in this section and in sections 3444 and 3445 , the stressed syllable of any simple word is always as follows:
a.) for monosyllabio words the stressed syllable is always the one and only syllable,
b) for bi-syllabio words the stressed syllable is always the first syllable,
o) for words of three or more syllables the stressed syllable is always the second syllable.

The stressed syllables of compound words ore the initial syllables of each reduplicated root and the second syllable of the post-root elements unless those elements comprise less than three syllables in which case the first syllable of the postmoot elements is stressed, cor. $\$ 624$ 。

The phonetic exponents of stress of this type are the features of prominence, length and pitch as described in the preceding section, 344.

I'wo types of word stress which fall outside the patterns described so far in this seotion are as follows:
a) any bi-syllabic verb form comprising a monosyllabic stem and the infleotional surfix -an, 57432 , is stressed on the second syllable.

Examples: zio'an 'seeing' wor'an 'stinging'
b) Any nominal comprising a bi-syllabic stem and the non-verbal suffix -k , which is one fomn of the suffix -kek, 5833 , is stressed on the second syllable.

Examples: ta'nak 'in the jungle' pi'dilk 'in the house'

3444 Word suffix stress

In all words which are suffixed by the word suffixes listed below, the stressed syllable is the penultimate syllable of the resultant word.

The word suffixes involved in this typeof stress pattern are:

$$
-a^{2} \mathrm{ca}, \quad-a^{2} \mathrm{ta}, \quad-\mathrm{oi}, \quad-\mathrm{tan}, \quad \text {-untana }
$$

These word suffixes are all of orders 7 and 8 of the class of word suffixes, 6673.

The phonetic exponents of stress of this type are similar to those of the word stress, namely prominence, length and pitoh features which mark the stressed syllable in the manner described in section 3442.
Examples:
asumpa'la'nca
ipin'maci

$$
\begin{aligned}
& a_{V V} a_{C V}{ }^{n} a_{C V}{ }^{\prime} a_{C V}{ }^{2 N a y} \\
& a_{V V}{ }^{a_{C V}}{ }^{\prime} a_{C V} a_{C V}
\end{aligned}
$$

'have you tied up?'
'now indeed'

## 3445

 Mmphatic stressBnphatic stress is distinguished from word stress by the following features:
a) The stressed syllable may be any syllable of the word. Emphatio stress may fall on the same syllable as word stress or on some other syllable in the word, in which case the syllable which would otherwise have been stressed as described in section 3443 is not marked by the feature of stress. However, though emphatic stress may mark any syllable of the wrord certain preferred patterns for this feature are noticeable. For example, in verb forms containing the extensor mapaalmost always emphatic stress falls upon the syllable of which the initial $V$ of the extensor is the nucleus.
b) The phonetic feature of length which is one of the phonetic exponents of all. types of stress, in the case of emphatic stress is different in some respects from its ocourrence in the other types of stress. In the case of emphatic stress the feature of length extends so as to include the consonant that is the exponent of either the C unit which closes the stressed syllable or the initial $C$ unit of the next syllable whon the stressed syllable is an open syllable. At the phonetic level the length of the $V$ unit of the stressed syllable and the $C$ unit described above is very much greater than the length of the $V$ unit of the stressed syllable of other stress types.
c) The other phonetic exponents of stress are sometimes heightened in the case of emphatio stress compared with the other two types of stress, $i_{0} e$, the pitch of the stressed syilable is sometimes greater than is normal for the pitch of stressed syllables of other stress types and the fcroe of articulation of the stressed syllable of emphatic stress is also sometimes noticeably greater than that of stressed syllables of other stress types.

Symbol: "is used to mark emphatic stress and is written immediately preceding the syilable with emphatio stress.

Examples:

| nam"jipala | $[$ nam"bi:poola] | 'you are living' |
| :--- | :--- | :--- |
| i"kinek | $[i " k i \cdot n: \partial k]$ | 'the middle' |

34.5 Palatalization associated with the suffix -fa

One further prosodio feature of the word concerns wrords which contain the suffix $-f a$ 'diminutive, affectionative', 8833 . All such words may be marked by the prosodic feature of palatalization. The phonetic exponent of this prosody is palatalization of the phonetic exponents of $C$ units which precede the suffix in the word concerned. There is no limit to the extension of this prosodic feature in the word, in that the feature may extend through none, some or all of the syllables preceding $-\int a$. The degree to which this feature extends in any word seems to vary from speaker to speaker and from one occasion to another.

## Examples:



## 35 Intonation

## 351 General remarks

Bvery Jebero sentence is marked by a pitch pattern. In order to make systematic statements of these patterns, a number of 'tunes' are abstracted from the phonic material and set up as the units of phonological description of sentence intonation in Jebero.

Wach tune will be described in turn below. The tunes fall into two groups, simple and complex.

352
Simple tunes

Tune 1
This is the most frequently occurring tune and is found accompanying a majority of sontences in the material examined.

Tune 1 has the phonetic exponent of a gradually falling pitoh over the length of the whole tune. The degree of fall varies considerably both within any one text and more especially between speakers. The fall is an overall intonation pattern and there are considerable intermediate fluotuations with the rise and fall of pitch corresponding to the stressed and unstressed syllables of words, 3442 .

The beginning of tune $I$ has three differing phonetic exponents, which are,
(i) pitch associated with the noxmal stress pattems of individual words, $\{34,42-3$,
(ii) pitch sustained at the level of the stressed syllable of the initial word, for vaxying lengths of the sentence, generally only for the first word but up to three words,
(iiii) pitch sustained at the level of the syllable preceding the stressed syllable of the initial word, for up to three words of the sentence, but usually only for one word.

The ending of tune 1 has three differing phonetic exponents, which are:
(a) a steep fall,
(b) a fall which is much less steep,
(c) pitch associated with the normal stress patterns of individual words, 53442.

The majority of examples of tune 1 found in the material examined began with exponent (i) and ended with exponent (a). Exponents (ii) and (iii) are clearly associated with certain types of sentence in narrative style speech. Exponent (b) occurred less frequently then exponent (a) but is not unusual. In the speech of one informant in particular this type of sentence ending was common. Exponent (c) was found only very infrequently, and may be said to have the implication 'more to follow', since this exponent is only found when further sentences follow in a group of connected sentences, e.g. as part of a story.

The begimings and endings of tume 1 may be diagrammed as below. Stress is symbolized as in the previous seotion.
(i)

(ii)

(iii)

or

(c)

j.'turima
(a)


さ'tułima
(b)


A complete example of tune 1 is given below:
Thune 1 (i) and (a)

'Then he looked for the other who was hidden.'

Tune 2
This tune oocurs more often than any other tune except tune 1. It bears a number of similarities to tune 1.

Thene 2 has phonetic exponents which are most easily described by dividing the tune into two parts for the purposes of description. The first part of tune 2 has phonetic exponents which are identical vith those already described for tune 1, and include all three types of beginning,
(i), (ii), and (iii), and this part of tune 2 ends with either (a) or (b). The second part of the tune has the exponent of a second gradual fall, and this part of the tune begins at a pitch usually markedly higher than the pitch of the final part of the first part though not as high as the begiming part of the tune. This second. part of tune 2 usuaily falls below the level. of the end of the first part but it does not always do so, and it may have exponents similar to any of the three exponents of the end of tune 1 . The second part of the tune is usually considerably shorter in length than is the first part. These two parts are always separated by a pause which may vary in duration froin quite slight to appreciable.

Tune 2 could be analysed as a variant of tune 1 , or as tume 1 with limited final pattern plus another tune 1 with limited initial pattern. However, this is not done because the pitch pattern allctted to trme 2 corresponds to the gramatioal unit, the sentence-type, in a way that a sequence of two pitch patterns of tune 1 does not correspond, c.f. 自 472 .

Diagram:
tune 2 (i), (b) and (a)

ðuŋ'kor'apan ka'nañi mu'sonleəkima ðup'apasik.
'Having looked, he found him when he was sitting on high.'

Ture 3
This tune generally occurs accompanying short sentences and in a majority of instances with sentences of one or two words only.

Tune 3 has the phonetic exponent of a simple rising pitch. Sometimes this tune may begin with a fall which extends over one or two syllables before the commencement of the rise. This tune is independent of the prosodic feature of stress, c.f. 自 3442 .

Diagram:


Tune 4
This tune also is found generally accompanying short sentences, and most frequently one or two word sentences.

Tune four has the phonetic exponent of a sustained pitch pattern, The pitch is sustained at the level of the first stressed syllable over the whole length of the tune except that occasionally a slight fall of pitoh is found at the end of the tune. This tune is independent of the prosodic feature of stress, c.f. 53442 .

Diagram:

wi'ci'lkor'!
'Go to sleep!'

Tune 5

This tune acompanies a variety of sentences, though it is not found at all Srequently.

Tune 5 has phonetic exponents of a pitch pattexn which can be described as a succession of pitch fluotuations corresponding to the patterns found with single isolated words, with a rise in pitch on the stressed syllable as described in section 3442. The end of this tune is marksd ocoasionally by a slight fall similar to that described for the enc of tune $I$ type (b), but more of ten this tune ends with the pitch pattern associated with the word spoken in isolation.

## Diagram:


a'la'sa' dok'faðelkima fia'pazi.
"The small stream is there."

Complex tunes are tunes comprising any of the simple tunes followed by tune 3. Complex tunes may be listod as follows:

| Tune 6 | comprising | tune | 1 | folllowed | by | tune | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 117 | " | " | 2 | " | " | " | 3 |
| 118 | " | " | 3 | " | " | " | 3 |
| " 9 | " | " | 4 | " | " | " | 3 |
| 1110 | " | " | 5 | " | " | " | 3 |

As is described in section 472 , sentences may be accompanied by more than one tune, and it would, therefore, be possible to treat the pitch pattems which are alloted to tunes 6 to 1.0 as sequences of two tunes. In this way no complex tunes would be set up. This procedure is not adopted for the following reasons:
a) Jinere is frequently no pause between the two parts of the complex tunes corresponding to the simple tures, whereas a sequence of two tunes accompanying a single sentence is often marked by a pause.
b) Complex tunes, as set up, correspond to certain sentence-types in a way which is not the case for sequences of two tunes.

This combination of gramnatical and phonological features suggests a distinction between pitch patterns that are here allotted to complex tunes and patterns that are allotted to sequences of tunes (simple or conplex).


As has been stated in the introduction, the verbal piece is a grammatical unit abstracted from the phonic material and set up as a convenient unit by means of which part of the grammatical structure of the Jebero language may be stated. The function of the verbal piece is described in terms of its distribution within the Jebero sentence and of its relation to other pieces in the sentence. It is, therefore, necessary to outline the struoture of Jebero sentences so that the function of the verbal piece can be seen and compared with the function of other pieces and categories set up to state Jebero syntactical structure.

This chapter, therefore, will outline Jebero syntactical structure. The sentence, favourite and non-favourite sentences, and various sentencetypes will be described in turn.

## 42 Definition of the sentence

The sentence in Jebero may be defined both in grammatical and phonological terms.

Phonologically, there is potentiality of silence before and after the sentence. In addition therefis a prosodic marker accompanying every Jebero sentence. A limited number of pitoh patterns occur and these mark out the sentence as a linguistic unit since every sentence is characterized by one or other of these pitch patterns. In particular, a falling intonation pitch patterm, tune 1 , see section 352, delineates the majority of sentences.

The sentence is the largest piece for which systematic statements of grammatical structure and relations are made. This is not meant to imply that it is not possible to set up grammetioal features which extend across sentence boundaries, but merely that such features are outside the scope of this thesis which is restricted to a limited study of a particular grammatical unit, the verbal piece. In fact, an examination of the texts given in chapter 11 will reveal that some very interesting statements of features accoss sentence boundaries may be made. For instance, in a group of sentences of narrative style the first word of every sentence, or the head of the first phrase is found suffixed by the word suffix -ima 'comnective' unless that sentence either begins with an included clause, or is followed by a sentence comprising a verb of class 0 , in which case the verb of olass 0 which always ocours is suffixed by -ima. Ocoasionally reference is made to such features. For example, in discussing the favourite sentence in Appendix I, reference is made to the fact that within a group of sentences one type of sentence, the nominal piece and verbal piece sentence, ocours frequently as the first sentence of the group, whereas another type of favourite sentence, the verbal piece sentence, is seldom found at the beginning of such a group. Similarly in discussing one class of Jebero sentence, the response sentence, reference is made to the fact that this type of sentence is only found following certain other types of sentence. However, though ocoasional references are made to such features, no category is established on the basis of these intersentence features, and no systematic statement of them is attempted. To treat these and further such features systematically would greatly widen the scope of this study and carry this thesis far beyond the consideration of the function and structure of the verbal piece.

In this thesis, then, the sentence is taken as the largest unit under examination and its internal structure and relations constitute the highest level of gramatical analysis. That a higher level of statement may be necessary for another purpose is not denied.

All sentences are referred to one of a limited number of syntactic patterns. The term sentence-type is used for these, the abstracted syntaotio patterns of the sentences. The terms, sentenoe and sentencetype, should not be confused. The phonic material is analysed into a number of sentences from which the sentence- types are abstracted. Thus, while sentences are spoken, sentence-types are not.

Certain sentenoe-types are found to occur much more frequently than other sentence-types. These are termed favourite sentenoe-types. ${ }^{1}$

This distinction between favourite and non-favourite sentencetypes is paralleled by a similar division of sentenoes into two classes, which may be labelled favourite sentences and non-favourite sentences. Favourite sentences are sentences which may be referced to the syntactic patterns of one or other of the favourite sentence-types, in contrast to non-favourite sentences which exhibit the patterns of other sentence-types. The use of these terms, favourite and nonfavourite sentence, is not meant to imply any kind of prior or preeminent status to any sentence, but merely to draw attention to the fact that the great majority of Jebero sentences of this style may be analysed as having the syntactic structuring of a very few sentencetypes. A mere list of sentence-types without any such grouping does not adequately convey this important fact.

## 44 Favourite sentences

The favourite sentences of Jebero exhibit two syntactic patterms and may be divided on this basis into two groups of sentences. These two syntactic patterns are set up as two classes of sentence-type, as follows,
I the verbal piece sentence-type,
II the verbal piece and nominal piece sentence-type,
A large proportion of favourite sentences are referable to the class I sentence-type, the verbal piece sentence-type. In addition to the fact that many sentences are thus analysed as comprising a verbal piece alone, all favourite sentences may be stated to comprise a structure which always includes a verbal piece, with or without another element. It can be seen, then, that the verbal piece may be regarded as the feature which above all other features characterizes the favourite sentence. Indeed the contrast between favourite and nonfavourite sentences in Jebero may be stated to be the contrast between sentences referable to structures comprising a verbal piece on the one hand and sentences referable to structures not comprising a verbal piece on the other. Consequently an understanding of the function and structure of the verbal piece is of central importance in any study of the grammatical structure of the Jebero language.

Each class of sentence-type will be described in turn in the following sections.

447 Class I The verbal piece sentence-type
The verbal piece sentence-type comprises one verbal piece, with or without a vocative piece. The internal grammatical structuring of the verbal piece sentence-type shows the same range of possibilities as the verbal piece alone except that a vocative piece may also be found. See chapter 5 for a detailed description of the internal structure of the verbal piece, and sections 573 and 46 for a description of the vocative piece. In its mininum foxm the verbal piece sentence-type comprises a

1. c.f. Bloomfield's use of these terms, 'Language' New York, 1933, p.171.
single word only, a verb, but this minimum form of this class of sentence-type is only rarely found, and the vast majority of verbal piece sentence-types oomprise a number of words. All these various possibilities are desoribed in chapter 5.

Symbols and Examples:
SII - sentence-type class I VP - verbal piece
Voc - Vocative piece

| nanima mapa'tuzina? | 'Tirey bought that! | D8. ${ }^{1}$ |
| :---: | :---: | :---: |
| VP |  |  |
|  |  |  |  |  |
| saka?pa?tukufininima kala dukor. | They weat to work for three months.' | D3. |
| STPI |  |  |
|  |  |  |  |  |
| nu9anima, ơunkertapaņiPla, ipa? nampokwatapilarimaipa? kaðunak. |  | A25. |
| $\begin{aligned} & \overline{\mathrm{VP}} \\ & \text { SII } \end{aligned}$ |  |  |

'Then, still looking, he is climbing up the wacrapona tree."

442 Class II The verbal piece and nominal piece sentence-tifpe

### 44.21 General remarks

This sentence-type comprises a verbal piece and one or moxe nominal pieces, with or without a vocative piece. The internal grammatical structuring of this sentence-type shows the same range of possibilitien as the structuring of any verbal piece and any nominal piece, except that a vocative piece may also occur. Thus, in its minimum form, this sentence-type comprises two words, a verb and a nominal. However, the great majoriby of sentences which are referable to this sentencemtype comprise a much larger number of words. The various possibilities for the structuring of the verbal piece are given in sections 51-56, for the nominal piece in section 572, and for the vocative piece in sections 573 and 46 .

## 4422 Concord of verbal piece and nominal piece

The verb(s) which function as the head of the verbal piece and the nominal (s) which fumction as the head of the nominal piece exhibit agreement of person and number. In contrast any other nominal in the sentence, e.g. a nominal within the verbal piece, does not exhibit any concordial relation with the verib(s).

## 4423 Suffixation by -lor

The nominal which functions as the head of the nominal piece in this type of sentence has the potentiality of suffixation by the nonverbal suffix -ler 'subject indicator'. This potentiality is

[^1]significant as it distinguishes the nominal(s) which function(s) as the head of the nominal piece from all other nominals which may be found in the sentence.

4424 Formal basis for the oategory of subject
The categony of subject is formally based, in that the subject may be derined as that nominal in sentencemtype class II which,
a) exhibits agreement of number and person with the verb, \$ 4, 22 , and
b) has the potentiality of suffixation by -1 er, 84423.

4425 The order of verbal piece and nominal piece in this sentencetype

The order of nominal piece and verbal piece in this sentence-type is not fixed. The whole verbal piece may precede or follow the whole nominal piece, or part of the verbal piece may precede and part follow the nominal piece. Generally the nominal piece is not discontinuous in this way but is found as a unit at some point of the structure, however, occasionally part of the nominal piece may precede and part follow the whole or part of the verbal piece, c.f. S 572.

Though there is no fixed order in sentences of class II sentencetype, certain preferred patterns can be seen in such sentences. The more constant patterns are these:
a) In a group of sentences of narrative style in the first sentence of the group the nominal piece almost always precedes the verb which functions as the head of the verbal piece, and frequently precedes the whole verbol pjece, standing in initial position in the sentence.
b) When the verbal piece comprises an inoluded clause, $\$ 5523$, the nominal piece frequently follows the whole verbal piece, and almost always follows the verb of class 0 with whioh the inoluded clause is associated.
c) When the veribal piece comprises other clauses, themselves preceding the verb which functions as the centre of the vexbal piece, the nominal piece almos't always follows these clauses, except under the circumstanoes already described in a) above.

Symbols and Examples:
STII - sentence-type of class II NP - Nominal piece
kwanta" ipa? nawonca?la?lok. 'I also have just come' 1.26 .8
$\cdots \frac{\mathrm{VP}}{\mathrm{NP}}$

VP NP

STIT
'Then having climbed down and jumped now the boy came.'
ala"sa" iyazi"ma, napi" dasu9walek iyalawoktan, pa?i inoilalalupa".
NP - VP
STII
'Long ago a man, wanting to listen very early in the moming, went along the path:' 10.50.1.

All favourite sentences may be referred to these two syntactic patterns desoribed in sections 441 and 442 . However, favourite sentences may be classified in another way. The categories of command, question, and statement sentence-types may be set up, each with its own syntactic structuring, and any and every favourite sentence may be referred to one or othor of these categories. Each of these categocies is set up formally and considered a class of sentence-type. This classification is a cross-classifioation not a further sub-dividing of the two classes already set up. There are, thus, two sets of classes of sentencetype, each set overlapping with the other. In this way every favourite sentence belongs to two different classes of sentence-type, one from each set.

4431 Class $X$ The commen sentoneo-type

Any sentencertype of class I or II which comprises a verb functioning as the head of the verbal piece which is inflected by a suffix of paradigm 11 or 12 , $\leqslant 743$, is a momber of class $X$, command sentence-type except when that verb is part of an included clause.

## 4432 Class $Y$ Tho question sentenoe-type

Any sentence-type of cless I or II wich includes either,
a) a word suffixed by the word suffix -a'ca 'question indicator', s 673, except when that wond is part of an included clause,
or
b) an interrogative adjective or adverb \$ 6646 and 665, except when part of an included cleuse,
is a menber of class $Y$, question sentence-type.

## 4433 Class Z The statement sentence-type

Any sentence-type of clesses I or II which is not also a member of either class $X$ or class $Y$, is a member of class $Z$, statement sentencetype.

In addition to grammatical differences desoribed above, there are phonological differences between sentences of these three sentencetypes $\$ 472$. This combination of gramatical and phonological features provides the justification for the establishment of this further set of classes of sentence-type.

Symbols and Examples:
STX - sentenco-type of class X STY - sentence-type of class Y STZ - sentence-type of olass Z
ma'ney supaypa? lcananek. STI and $Y$ 'Whatever demon did I find?' A7.
กีima iyanapiciñi.
SII and Z
'She didn't reply.'
0.47 .16.
dell mantor.
STI and $X$
'Fetch the water.'
kwaler siwe?cecok.
STIT and $Z$
'I will take it.'
1.54 .3.
eñupa"la"nca kennama' woklama?. STII and $\Psi$ 'From where have you come?'

Instead of setting up two sentence-types and referring all Jebero favourite sentences to one or other of them, as has been done in sections 441 and 442 , it is possible to analyse favourite sentences by setting up only one sentence-type or by setting up a larger number of sentence-types than these two. These different possibilities are outlined and discussed in Appendix I, Alternative treatment of Jebero favourite sentences.

## 45 Non-favourite sentences

All sentences which do not exhibit the patterns of favourite sentence-types are termed non-favourite sentences.

All non-favourite sentences are referable to one of tive syntactic patterns. These five sentence-types are dealt with below; section 451 treating the deictic sentence-type, seotion 452 the predicative sentence-type, section 453 the response sentence-type, section 454 the interrogative sentence-type and section 455 the vocative sentence-type.

Class III The deictic sentence-type

Deictic sentences are sentences whose internal grammatical structuring is referable to one of the following five syntactic patterns.
a) A deictic particle, $\$ 663$.
b) A deictic partiole followed by a nominal or nominal phrase, 15531.
c) A deictic adjective, 86646.
d) A nominal phrase including a deictic adjective.
e) Any of the above followed by a vocative piece, ; 573 and 46 .

The deictic particle and deictic adjective are defincd on the basis of their occurrence in deictic sentences. However, to avoid circularity in these definitions these two sub-classes are listed exhaustively, 663 and 6646.

Symbols and Examples:

SIIII - sentence-type of class IIT $\quad$ PD - dejctic particle $\mathbb{N}$ - nominal $\quad$ FN - nominal phrase $a D$ - deictic adjective

PD VP
STIII STI
$\begin{array}{ll}\text { 'There is my money' } & 0.46 .5 .\end{array}$
""Is this it?" he said.' 1.7.14. (illustretos 0 )
'These are girlss' 1.7.15. (illustrates d)


| ma"atasu", <br> PD | Voc. <br> STIII |
| :---: | :---: |

All predicative sentences are referable to one of three syntactic patterns, and all sentences so referable are predicative sentences. These patterns are:
a) A nominal phrase with or without a pronoun. The nominal phrase contains a nominal centre suffixed by a member of order 14 of the nonverbal suffix class. This nominal phrase is similar in its grammatical structuring to any other nominal phrase except that its head is always simple and never complex, 5 55311. The nominal phrase in the predicative sentence may or may not contain an expension.
b) A sentence including one form of the predicative verb nuka?ka,

自 76. In addition to the predicative verb this sentence may com prise any of the elements of the verbal piece except that no further verbal head is found, i.e. the predicative verb functions as verbal head.

Occasionally sentences are found which comprise a combination of the features of these two pattems, This is one reason for treating these two quite different grammatical structurings as one type of sentence, since a nominal phrase suffixed by order 14 of the non-verbal suffix class never occurs in a sentence comprising any other verb than one that is a member of the predicative verb series.
c) Either of the above followed by a vocative piece.

Symbols and Examples:
STIV - sentence-type of class IV $p$ - pronoun
Vp - ver'b of predicative class

| kwi'na <br> p | Tankunaku. N |
| :---: | :---: |
|  | IV |


$\frac{$|  puka?  |
| :---: |
| N |$\frac{$|  nuka?  |
| :---: |
| Vp |}{SIIV}}{}

'But I am I'anguna.' B28.
(illustrates a)
'It.'s a tuxtie.' 0.29 .12.

STIV


## 453 Class $V$ The response sentence-type

A response sentence-type comprises a single word or phrase, with or without a vocative piece.

Response sentences are found to follow certain types of f'avourite sentence, namely, question and command sentences, 8443 , two types of non-favourite sentence, namely, the vocative sentence and the interrogative sentence, $\mathbb{E} 454$ and 455, and included clauses of these structures, 5 5523. The responses of informants when these were not in the patterns of favourite sentence-typos or other non-fravourite sentence-types were of this structure.

Symbols and Examples:

$$
\text { STV - sentence type of class } V \quad W \text { - word of any class }
$$

Ci - included clause

```
mokfi, itukuñima, ma`ney, mekfi. ""Brother-in-law," he said,
    Voc W Voc "What is it, brother''''1.34.012.
STVII
    Ci
        STI
        STV
mucury, tuzima.
'" O.K. " he said.'
0.54.11.
    W
    STV
    Ci
    SITI
```


## 454 Class VI The interrogative sentence-type

The class VI sentence-type comprises either,
a) a word other than a verb suffixed by the word suffix, -a"ca 'question indicator' 5673.
$\frac{o r}{b)}$ an interrogative adjective or adverb with or without a further word or nominal phrase, 5646 and 665 ,

## or

c) either a) or b) followed by a vocative piece, 846 and 573.

Occasionally sentences with the characteristics of a) and b) are found.

Symbols and Examples:
SIVI - sentence-type of class VI


Ci
STI


455 Class VII The vocative sentence-type

The class VII sentence-type comprises a vocative piece, ${ }^{\boldsymbol{\beta}} 46$ and 573.

Very few examples of this sentence-type have been found in the material examined, though this may, in part, be explained by the nature of the material.

Symbols and Examples:
STVII - sentence-type of class VII
ałi2fa. itunta"łima. '"Brothen" He went and said.' 10.31.3.
Voc VP
SIVII STI
meksi. itukuñima. ${ }^{\prime \prime}$ Brother-in-law. " He went and said.' 1.34.12. Voc

VP
STVII STI

Sentence-types of classes I to VI may comprise a vocative piece. The structure of the vocative piece is described in section 573.

There is a fixed order between the vocative piece and the rest of the sentence-type in that the vocative piece follows the rest of the sentence-type and is in sentence final position.

Examples:


47 Phonological characteristics of favourite sentences

## 471 Pause

In a sequence of several sentences, e.g. in a story or conversation, the majority of sentences, irrespective of the class to which they are alloted, are preceded and followed by a pause. This pause may vary in length considerably.

Frequently this pause is accompanied by indrawn breath, though not always since more than one sentence may be spoken before further breath is taken, and very occasionally fresh breath is taken at some point within a sentence. It seems probable that indrawn breath at pause points which do not coincide with sentence boundaries is attributable to extraminguistic faotors.

Pauses, of varying length, are also found within the sentence. Such pauses are generally shorter than those marking sentence boundaries, and often coincide with the boundaries of pieces of the sentence.

## 472 Intonation

All sentences are marked by one or more pitch patterns, Most frequently sentences are accompanied by one pitch pattern only, that is to say, the unit set up for the statement of grammatical structure, the sentence-type, frequently corresponds to the unit set up for the statement of part of the phonological structure, i.e., the tunes set up for the description of the pitch patterns, $\$ 35$. This coincidence of grammatical and phonological boundaries is very frequent and, of course, lends support to the analysis at both levels.

However, there is not complete congruence of these two different levels of analysis. Overlapping is noticeable in two respects.
a) Not infrequently the complete gramatical unit, the sentence-type, corresponds to two or more units of the phonological analysis, the tunes. In such instances it is found that the different tunes correspond to various parts of the sentence which are themselves units at a lower level. For example, when a single sentence is accompanied by two tunes, it is frequently the case that the sentence is referable to a structure which includes an included clause, 5 5523, and that one tune corresponds to this included clause. This type of overlapping is found
with favourite sentences only. Tunes $1,3,4,6,8$ and 9 are found preceding or within tunes 1,2 or 5 .
b) Much less frequently the complete gramatical unit, the sentencetype, corresponds to only part of the tune set up at the phonological level. In such instances two or more sentences are accompanied by a pitch pattern which is allotted to one tune. It is only very rarely that more than two sentences are found marked in this way. This type of overlapping applies to all classes of sentence. The following tunes may correspond to two or more sentences in this way, $1,5,6$ and 10.

The various sentence-types are found to correspond to different tunes as set out in the table below:


## Examples:

nu"si"ma er"wasikima, ipa" tontanna", wici"zina? ðokpiłi". AlO.
Thme 1 , SII and $Z \quad$ Thus later having smoothed out their beds they slept in the night.'

Tune 2, STII and $Z \quad$ 'While they slept at night, the All.: tiger growiled, wanting to come to them and eat them.'

51 General remarks
52 Main divisions of the verbal piece
53 The veribal head.

54 Different types of verbal piece
54.1 Classification on the basis of the verbal head

542 Classification on the basis of the verbal expansion
543 Combinatory classification
55 The verbal expansion
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The nominal phrase The nominal head Different types of nominal phrase The nominal expansion Nominal phrases in the verbal expansion
The relative phrase The relative head The relative expansion Difference in structure between the nominal and relative The relative phrase in the verbal expansion . phrases
The adverb phrase
The word
Nominals of the categories of object and of adverbial function
The category of object nominal and object nominal phrase
The category of nominal and nominal phrase with adverbial function
Alternative treatment of the verbal piece
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General remarks
The nominal piece
The vocative piece
Comparison of the nominal piece, vocative piece and nominal phrases of the verbal piece
Chart of verbel piece structure

Chapter 5 The struoture of the verbal piece and other pieces of the favowite sentence

## 51 General remarks

This ohapter deals with the internal gramnatical structuring of the pieces into which the sentence-types to which all favourite sentences are allotted, are divided, namely, the verbal piece, the nominal piece and the vocative piece. Special attention is given to the verbal piece which is described in detail in sections 51--56. Seotion 57 deals briefly with the nominal piece, and the vocative piece.

The final section in this chapter, section 58, givos a sumary of the intomsl starotruing of tho reabel pioco by mons of a dingrom.

52 Main divisions of the verbal piece

The verbal piece is an endocentric construction comprising at least one head word which is always a vorl, with or without one more subordinate word(s).

The verbal piece is divided into a verbal head and a verbal expansion. These two parts of the verbal piece are not found in any fixed order relative to each other.

There are two types of verbal piece, the simple verbal piece which comprises one or more head words alone, and the expanded verbal piece which comprises both a head and an expansion. It follows that while every verbal piece comprises a verbal head, not every verbal piece comprises a verbal expansion as well. Any expanded verbal piece, comprising head and expansion, may be substituted by a simple veribal piece, comprising a verbal head only. Thus the verbal expansion may be regarded as subordinate in relation to the verbal head, the two parts together functioning as an endocentric subordinate construction.

Symbols and Examples:

| VH - verbal head VX - verbal expansion |  |
| :---: | :---: |
| du? Vİma. | ClO. |
| VP |  |
| pileñantusikima, lansa?nuntazina? faya?lusa? 1.55.11. |  |
| VX VH VH | 'When he piped the |
| VP NP | women danced again.' |
| nuPanima, nana aliPlima insokita"su" ðunke?zi A22. |  |
| VX VH | other one who had |
| VP | hidden himself.' |

## 53 The verbal head

The verbal head consists of one or more verb forms. Such verb forms are always suffixed by one of a limited number of the verb inflectional suffixes, namely by one of the suffixes of paradigms $1-7$, 11 and 12.

Iwo types of ver'bal head are distinguished: simple and complex, A simple verbal head comprises one verb form only. A complex verbal head comprises two or more verbs in a co-ordinative relationship to each other.

Within any verbal piece any or all verbs of the verbal head may function as head to a part of or to all the verbal expansion of the particular verbal piece. There is no fixed order between the verbal head and veribal expansion.

Symbols and Examples:
VHs - simple verbal head VHc - complex verbal head
Wokilalorima ðituwini incilalak, wolkapinca?sik. 0.39 .15.
$\left.\right|_{N P}$
'The lightening almost killed him on the path, when he was coming.'


VP
'He worked again for one month and when he had worked he bought a gun.' D22.
54. Different types of verbal piece

A two-fold classification of different types of verbal piece is possible since the various structures of the verbal piece may be grouped together either on the basis of similarities of the verbal head or similarities of the verbal expansion. This two-fold classification may be combined in two different ways.

## 541 Classification on the basis of the verbal head

Every verbal head comprises either a simple head or a complex head. This classification would set up two types of verbal piece, namely, type $A$, those verbal pieces analysed as heving a simple verbal head and type $B$, those analysed as having a complex verbal head. Type $A$ may be termed simple verbal piece, and type B complex verbal piece.

## 542 Classification on the basis of the verbal expansion

Irrespective of the structure of the verbal head, a verbal piece may contain a verbal expansion in addition. All verbal pieces may, therefore, be grouped into two classes on the basis of the presence or absence of such an expansion. Type 1 comprises all verbal pieces with a verbal expansion and may be termed subordinative verbal piece. Type 2 comprises all verbal pieces without a verbal expansion and may be termed non-subordinative verbal piece.

## 543 Combinatory classification

These two classifioations may be combined as follows. Bach of the two types $A$ and $B$ may be further subdivided on the basis of the presence or absence of a verbal expansion. Thus type $A$, the simple verbal piece, is divided into type Al, subordinative simplo verbal piece, comprising a verbal expansion, and type A2, non-subordinative simple
verbal piece, where no verbal expansion is presento Similarly type $B$, the complex verbal piece, is divided into type $B 1$, suboxdinative complex verbal piece and type B2, nontwhbordinative complex verbal. piece.

A somewhat similar combinatory classification can be made if the classification into types on the basis of the presence or absence of a verbal expansion is taken as primary and a further subdivision is then made of the two types on the basis of the verbal head. Type 1, the subordinative verbal piece, is divided into type 1A, simple subordinative verbal piece, and type 1 B , complex subordinative verbal piece. Type 2, non-subordinative verbal piece is divided into type 2A, simple non-subordinative verbal piece, and type 2 B , complex non-subordinative verbal piece.

These different classifications may be diagrammed as follows:


Examples:
ðuPlima.
$\mathrm{VHs} \mathrm{A2}$ or 2 A
VP
wakilalerima 犭i?tuwiñi incilalak, wolkapinca"sik. 0.39 .25.
$\int_{N P} \frac{V H s A l}{}$
NP
The lightening almost killed him on the path when he was coming.'

VHe BI or 1 BX VX VX VHe or $1 B$ VP
'He worked again for one month and when he had worlked he bought a gun.' D22.

55 The verbal expansion

## 551 Composition of the verbal expansion

Irrespective of the structure of the veribal head, the verbal piece may include a verbal expansion. This verbal expansion may comprise one or more clauses, one or more phrases, one or more words or unrestricted combinations of clause(s), phrase(s) and word(s). These various gramatical units, olause, phrase and word, are subordinate to the verbal head.

In the case of a complex verbal head, the verbal expansion of clause, phrase or word, may be subordinate to any or all of the verbs comprising the complex head.

The clause is found solely as, or as part of the verbal expansion of the verbal piece, and is in a subordinate relationship to the verbal head, since it is never found alone but always with a verbal head and the endocentric construction of verbal head and clause is always substitutable by a verbal head alone and never by a clause alone.

Clauses are divided into three types, concordial clauses, nonconcordial clauses and included clauses. Fach of these is dealt with in detail below; however, some general features of all three types may first be noted.

The internal grammatical struoturing of every clause is similar to the struoturing of one or other of the sentenco-types alrcady described in chapter 4. The structuring of the included olause corresponds to the structuring of any sentence-type and included clauses have been found with a structuring similar to one or other of each of the 7 classes of sentonce-type. The structuring of the concordial and nonconcordial clause is found always to be similar to the structuring of sentence-types I and II only, i.e. to the sentence-types to which all favourite sentences are allotted except that,
a) no vocative piece is found in the concordial or non-concordial clause, and
b) the verb head in these two types of clause is always found with one of a limited number of the verb inflectional suffixes, namely, a suffix of paradigus 6-10, $\$ 74$, in contrast to the verb which functions as the verbal head of the verbal piece of the sentence-type which always comprises an inflectional suffix of paradigms 1-7, 11 and 12.

Besides these morphological features there are prosodic features which also mark the olause as being part of the sentence-type rather than as being an independent unit. The part of the sentence which corresponds to the clause does not have potentiality of silence both berfore and after it as does the sentence itself, though a pause of varying length may precede or follow the part of the sentence that is allotted to the clause. That part of the sontence which corresponds to the clause frequently does not have a complete sentence intonation pattern, that is, the tunes, the units set up for the statement of the pitch patterns, do not correspond to the grammatical units, the clauses, except in the case of included clauses when the tunes may or may not conrespond to the gramatical unit, the clause, $\$ 472$.

Symbols:

$$
\begin{array}{cc}
\text { C-clause } & \text { Ci - included clause } \\
\mathrm{Cc}-\text { concordial clause } & \mathrm{Cn}-\text { nonconcordial olause }
\end{array}
$$

## 5521 The concordial clause

Concordial clauses may be defined as those clauses which a) alvays exhibit agreement of person and number between the verb which functions as the head of the verbal piece of clause and the verb which functions as the head of the verbal piece of which the clause is a pert, and, b) which contain as verbal head a verb suficixed by one of the verb inflectional suffixes of paradigm 10. Both oriteria aro applicable to every concordial cleuse.

The internal granmatical structuring of every concordial olause is similar to the structuring of either sentence-type I or II, except that
a) no vocative piece is found in the concordiel clause, 目 44 and 442 , and
b) the verb head is limited to different paradigms, see below. Thus every concordial clause contains an included verbal picce, and some concordial clauses also contain an inoluded nominal piece.

The term included sentence-type is used to distinguish the internal structuring of the clause from the internal structuring of the favourite sentence-types.

The verbal piece of the concordial clause is structured in the same way as the verbal piece of sentence-types I and II, and is divided into verbal head and verbal expansion in the same way and with the same relationships as already described for the verbal piece of the favourite sentence in section 52.

The verbal head of the concordial clause is similar in structuring to the verbal head of the verbal piece of sentence-types I and II as described in section 44 , except that the verb or verbs concerned are always found suffixed by one of the verb infleotional suffixes of paradigm 10 only, in contrast to the verb which functions as the head of the verbal piece of sentence-types I and II which is suffixed by any member of the inflectional paradigms 1-7, 11 or 12.

The verbal expansion of the concordial clause is similar in every respect to the verbal expansion of the verbal piece of the sentencetypes I and II as described in section 55 . Thus there may be further olauses within the concordial olause and so on in principle without limitation.

Symbols and Examples:
STi - inoluded sentence-type


5522 The non-concordial olause
Non-concordial clauses may be defined as those clauses which are not included clauses and which,
a) do not exhibit agreement of person and number between the verb which functions as the head of the verbal piece of the clause and the verb which functions as the head of the verbal piece of which the clause is a part, and,
b) which contain as verbal head a verb suffixed by one of the verb inflectional suffixes of paradigms $6,7,8$ or 9 .
Both oriteria are applicable to every non-concordial clause.
When either the clause itself or the sentence-type of which it is a part comprises a verbal piece only, some possibility of ambiguity occurs. For example, the verb head of the verbal piece of the sentencetype may exhibit exponents of the categories of third person and singular, and the verb head of the verbal piece of the non-concordial clause may also exhibit exponents of the categories of third person and singular, and thus the two verbs concerned may appear to be in agreement of person and number contrary to the criterion stated in the paragraph above. However, this type of agrecement may be treated as accidental and not structural, since if the clause and the sentence-type of which it is a part is substituted by a clause and a sentence-type corresponding in every respect oxcept that each comprises a nominal piece as well as
a verbal piece, it will be seen that different nominal pieces are found in the sentence-type and in the non-concordial clause. Thus the nonconcordial clause may be contrasted with the concordial clause, for if a similar substitution is made in the case of a concordial clause and the sentonce-type of whioh it is a part one and tho same nominal piece will be found in the concordial clause and the sentence-type concerned.

The internal gramatical struoturing of the non-concordial clause . . is similar in evexy respect to that of the concordial clause, as described in section 5521, except that the verb or verbs functioning as the verbal head of the non-concordial clause are always found suffixed by one of the verb inflectional suffixes of paradigms 6, 7, 8 and 9, (not paradigm 10). Apart from this the two types of clause are complotely parallel in structure.

## Examples:

| dunkerapanima, kananio musenkokima dupapasik |  |  |  |
| :---: | :---: | :---: | :---: |
| VP |  | VP |  |
| SriI |  | STiI |  |
| Cc. |  | Cl |  |
| VX | VH | VY |  |

## 5523 The included ol.ause

Included olauses are those olauses which follow on precede a verb of sub-class 0, $\$ 662$, or a form derived from a verb of sub-class 0 , the verb, or vorb derived form, and the included clause constituting an endocentrio construction of which the sub-alass 0 form is head and the included clause is an expansion. The sub-class 0 form is either a verp functioning as the head of the verbal piece of either a sentencemtype of class I or IT on of a clause which is itself a part of such a sentencetype, or a verb derived nominal which is the head of a relative phrase, - 5532 。

The included clause may be structured in a similar manner to the internal grammatical structuring of any sentence-type of any class described in chapter four. All. such sentence-types are termed included sentence-types.

Any single included clause may correspond to a complete tune, or may correspond to only part of a tune. Thus there is sometimes complete congruence between the grammatical unit, the included clause, and the phonological unit, the tune, 8472 .

## Examples:



$$
1.55 .2
$$

" "Pipe agein! We are going to dence, " said one. "

Further exemples are givon on the next page. The second of these examples uses the symbols, $F r, r H$ and $r X$. These are explained fully in section 5532 and stand for the relative phrase, relative head and relative expansion respectively. Similarly the first example uses the symbols, $\mathbb{F N}$, $N H$ and $N X$ standing for nominal phrase, nominal head and nominal expansion, s 5532.





VP
'He said, "...I came after I had looked, because of what they said, 'I will come to Join at night, let's talk', ".'

There are three types of phrase which are found as part of the verbal expansion, the nominal phrase, the relative phrase, and the adverbial phrase. Each of these will be described in tum in the following sections. Of these three types of phrase the nominel phrase is found much the most frequently in the material examined.

All phrases of these three types have this in common that they comprise an endocentric construction.

Symbolis: $\quad 刃$-phrase
Fre - relative phrase

BN - nominal phrase
TA - adverbial phrase

5531 The nominal phrase
The nominal phrease is an endocentric construction comprising either one head word which is always a nominal with at least one subordinate word, or two or more head words with or without subordinate word(s). The nominal phrase is divided into the nominal head and the nominal expansion.

## 55311 The nominal head

The nominal head consists of one or more nominals. Two types of nominal head are distinguished: simple and complex. The simple nominal head comprises one nominal only, whereas the complex nominal. head comprises two or more nominals in a co-ordinate relationship, o.f. the verbal head, s53. Within the nominel phrase any or all nominals of the nominal head may function as head to a part of or to all the nominal. expension of the particular nominal phrase.

Members of the nominel sub-classes noun and adjeotive may function as head of a nominal phrase but not members of the sub-classes pronoun or relative.

## 55312 Different types of nominal phrese

A twomfold classification of three different types of nominal phrase is possible on the basis of the different types of nominal head and nominal expansion, c.f. the classification set out for the verbal piece in section 54.

On the basis of the nominal head a classification into simple and complex nominal phrase is made. The complex nominel phrase may be further sub-divided into subordinative and non-subordinative complex nominal phrase, on the basis of the presence or absence respectively of a nominal expansion.

Altermatively, if the presence or absence of an expansion is taken as the criterion for theprimary olassification, then the nominal phrase is divided into two types: subordinative, and non-subordinative. The subordinative nominal phrase is then divided into simple subordinative and complex subordinative on the basis of a simple or complex head to the phrase.

Whichever oriterion, composition of the head, or presence of expansion, is taken as primery there are, thus, established three types of nominal phrase. Simple phrase, subordinate complex phrase, and nonsubordinate complex phrase establishod on the one basis correspond to simple subordinative phrase, complex subordinative phrase and nonsubordinative phrase on the other basis.


Ehrase


55313 The nominal expansion
The nominal expansion may comprise either one or more nominals of the sub-class adjective, or a nominal phrase containing a head nominal suffixed by the non-verbal suffix -ki, or a relative nominal, or a relative phrese, or unrestricted combinations of these elements. These four types of nominal expansion are as follows:
a) The nominal expansion may comprise one or more nominals of the subclass adjeotive. Generally any such adjective precedes the nominal head. This type of expansion is the most frequently occurring type.
b) The nominal expension may comprise a nominal, either functioning as head of a nominal phrase or independently, which is always suffixed by the non-verbal suffix - ki which may be roughly translated as 'possession'. Such a nominal may be of any sub-olass. No examples of a nominal expansion for this type of nominal phrase have been found that do not fall under type a) desoribed above. In fact, in a large majonity of cases only a single nominal is found. This type of nominal expansion generally follows the nominal head to which it is subordinate.
c) The nominal expension may comprise one or more nominals of the subclass relative, Generally any such relative follows the nominal head.
d) The nominal expansion may comprise a relative phrase containing a head nominal. with at least one subordinate word, 8 5532. Generally the relative phrase is found following the nominal head to which it is subordinate.

55314. Nominal phrases in the verbal expension

The verbal expansion of the verbal piece may comprise a number of nominal phrases. All such phrases fell into one of two groups, according to whether on not the hoad nominal is suffixed by a member of groups B and $C$ of the non-verbal suffixes, $\$ 832$.

Nominal phrases which contain a nominal head which is not suffixed by a mernber of groups $B$ and $C$ of the non-verbal suffixes fall into the category of objeot nominal phrases, $\$ 555$ for the formal besis of the category of object. The nominal head of such phrases may be suffixed by members of group A non-verbal suffixes. When the nominal head is so
suffixed the nominals of the nominal expansion do not exhibit any type of concord with the head nominal．Nominals of the nominal expansion are not usually found suffixed though they do occur suffixed by members of the word suffix olass，and less frequently are found suffixed by mem－ bers of group A of the non－verbal suffixes．

All nominal phrases of the verbal ptece which do not fall into the category of object nominal phrases， 1555 ，are designated nominal phrases with adverbial function．All such nominal phrases contain a nominal head which is suffixed by a member of groups $B$ and $C$ of the non－ verbal suffixes．The nominal head of such phrases may be suffixed by members of group A non－verbal suffixes and by word suffixes，and so， too，may be the nominals of the nominal expansion of such phrases，though suffixation of the expansion is less frequent than suffixation of the nominal head．There is no type of concord between the nominal head and expansion．

保保ples：


## 5532 The relative phrase

The relative phrase is an endocentric oonstruction comprising at least one head word which is always a relative nominal with at least one subordinate word，of any word clens，

The relative phrase is divided into the head and the expansion． Symbols：xH－relative head rX－relative expansion

55321 The relative head

The relative head consists of one relative nominal，$\$ 664$ ．

## 55322 The relative expansion

The relative expansion comprises one or more words of any word class，in a subordinate relation to the head．The relative expansion most commonly comprises one or more nominals whioh may or may not be suffixed by members of groups $A, B, C$ and $E$ of the non－verbel suffixes． Occasionally the relative expansion comprises one or more included clauses，$\overline{\mathrm{E}}$ 5523．In such instances the relative heed is always derived from a verb stem of submelass 0 ，目 662.

The relative expansion almost always precedes the relative heed in the sentence.

When the relative expansion contains a nominal there may be concord between the head and the expension, in that there may be agreement of person and number between the nominal of the expansion and the relative head which always exhibits exponents of the categories of person and number, 5828 . Such a nominal is similar to the subject nominal of the nominal piece in sentence-types of class II, 自 442 .

55323 Difference in structure between the nominal and relative phrases
Since both the nominal phrase and the relative phrase contain heads which are membens of the nominal word class, it is important to draw attention to the fact that these two types of phrase are clearly distinguished.

The chief differences between these two types of phrase can be roughly andicated by stating that the relabive phrase is much more like a clause or sentenoe than is the nominal phrase. Besides this rough general distinction, specific ways in which the two types of phrase are differentiated may be stated as follows:
a) The expansion of the relative phrase may conprise a nominal of the sub-class noun with or without a non-verbel suffix of groups $A, B$ and $C$, whereas the expansion of the noninal phrase may not comprise a nominal of the submclass noun unless that noun is suffixed by a member. of group 0 of the nonwerbal class of suffixes.
b) The expansion of the relative phrase may comprise an included clause whereas the expension of the nomiral phrase never does.
c) The expansion of the relative phrase may comprise words of other word classes than the nominal whereas the expansion of the nominal, phrase comprises words of word classes other than the nominel only when those vords are themselves part of the expansion of a relative phrase which is functioning as part of that nominal expans:ion.
d) The head of a nominal phrase may be a nominal of sub-class noun, or adjective, whereas the head of a relative phrase is always a nominal of the sub-class relative.

These differences give formal justification for the establishment of these two different types of phrase and this is important since the submolasses of the nominal are established in part on the basis of their distribution in these two phrases so that if these two types of phrase were not formally distinct the analysis would be open to the charge of circularity, o.f. $\$ 664$.

55324 The relative phrase in the verbal expansion
The relative phrase is found as part of the verbal expansion in two different ways:
a) as directiy subordinate to the verbal head, and
b) as part of the nominel expansion of a nominal phrase which is itself part of the verbal expansion.
In this first instance the relative phrase may be in a co-ordinative relationship to any nominal or nominal phrase in the verbal expansion. In this second instance the relative phrase is directly subordinate to the head of the nominal phrase, the whole nominal phrase of which it is a part being subordinate to the verbal head.

When found as part of the nominal expansion, i.e. as in b) above, the relative phrase contains a head which may or may not be suffixed by members of group A non-verbel suffixes and by word suffixes, but which may not be suffixed by members of groups $B$ and $C$ of the non-verbal suffixes. In contrast, when found directly subordinate to the verbal head, i.e. as in a) above, the head of the relative phrase may be suffixed by members of groups $A, B$ and $O$ of the non-verbal suffixes and by word suffixes.

Examples: see next page.
'They bought poison, good poison, that which they call Ticuna poison, that which came formerly in a small vessel.'
'Having dane that he looked for the other one who

The adver'h phrase is an endocentric construction comprising one head wrord which is always an advexb of the sub-class phrasal adverb and an expansion comorising one subordinate word, which is always a nominal of the sub-class adjeotive, $\$ 665$ and 6646 .

There is a fixed order between the head and expension within the adverb phrase, the expansion being found always preceding the head.

It is rare for any verbal expansion to comprise more than one adverb phrase, though ocoasionally two phrases in a comordinate relationship to each other have been found in the verbal expansion.

Symbols and Examples:
$A H$ - adverb phrase head $A X$ - adverb expansion
iñor dekpiziplusi?ma incilalak pawiłitapazi.

$$
0.51 .2 .
$$




## 554 The word

There are throe olasses of word which are found as part of the verb expansion, namely the nominal, the particle and the adverb.

All these classes of word are found both with and without suffixes in the verb exprasion. Any type of suffixation which oocurs with these word classes is also tound when they are functioning as part of the verib expansion, except that thenominal is never found suffixed with members of groups $D$ and $E$ of the non-verbal suffixes.

Symools and Examples:

$$
P-p a r t i c l e \quad A-\text { adverb }
$$

nu"tanima, ipa"linci a"anu"lu"tuiti.

10.16.11.
'Then having done that, he made itt fall to the ground. '

Nominals of the categories of object and of adverbial function

Within the verbal expansion all nominel phrases and nominals which are not members of any nominal phrase are in one of two categories. Such nominals and phrases are either object nominals and object nominal phrases, or nominals with adverbial function and nominal phrases with adverbial function. These two oategories are formally based.
5551. The oategory of objeot nominal and object nominal phrase

Any nominal in the verbal expansion which is either the head of a nominal phrase or is not a subordinate member of a nominel phrase and which is not suffixed by a member of groups $B$ and $C$ of the non-verbal class of suffixes is designated an object nominal and the phrase of which it is the head is an object nominal phrase, $\$ 55314$.

The object nominal phrase seldom oocurs in the verb expansion of a verbal piece whose head is a bipersonal verb, though it has been found to do so occasionally and in such instances there is agreement of person and number between the second person of the bipersonal verb and the objeot nominal.

A verbal piece in which an object nominal of the sub-class pronoun, of first or second person, singular or plural, is found as, or as part of, a verb expansion and whose verb head is a unipersonal verb, corresponds to a verbal piece identical with this verbal piece except that no object nominal is found and the verb head is a bipersonal verb whose secondery person is first or second person, singular or plural, according to the person and number of the object nominal of the expansion of the verbal piece which comprised a unipersonal verb.

These two types of construction seem interchangeable though stylistic differences may be noted. In general the construction comprising a unipersonal verb plus nominal would appear to be more emphatic than the construction comprising a bipersonal. verb. Probably the construction mentioned in the previous paragraph comprising bipersonal verb and object nominal differs from these other two constructions stylistically as well. Certainly all these variations have no grammatical signi-m ficance though they probably have significance at another level, stylistic or situatjonal.

5552 The category of nominal and nominal phrase with adverbial function
Any nominel in the verbal expansion which is either the head of a nominal phrase on is not a subordinate member of a nominal phrase, and which is suffixed by a member of groups $B$ and $C$ of the non-verbal class of suffixes is designated a nominal with adverbial function and the phrase of which it is the head is a nominal phrase with adverbial function, © 55314.

## 56 Alternative treatment of the verbal piece

The analysis so far presented has divided the werbal piece in a threefold manner, namely, into
verbal head and verbal expansion, simple verbal head and complex verbal head, subordinative and non-subordinative verbal piece.

A somewhat different analysis would set up two types of verbal piece, the simple verbal piece and the expended verbal piece. The simple verbal piece would comprise a single word only, namely a verb. The expanded verbal piece would comprise a verbal expansion of which there would be two types, a co-ordinative expansion and a subordinative expansion. The co-ordinative construction would comprise two or more verbs funotioning as head with the potentiality of occurrence of other words in a subordinative satellite relationship to these verbs. The subordinative construction vould comprise a single verbal head with a subordinative satellite which might be oither one or more clauses or one or more phrases, on one or more words or unrestricted combinations of these.

The chief difference between the treatment already outined and this alternative lies in the use of the term expansion. In the earlier treatment this texm is used only for the words in a subordinative satellite relationship to the head, whereas in the alternative treatment this term is used for all constructions apart from the simple verb, i.e. it is used to include expansions of the head as well as expansions of subordinate words, and thus covers comordinative as well as subordinative constructions. Co-ordinative constructions are treated in the earlier description as constructions involving a complex head and are not texmed expansions.

Ihis altemative treatment of the verbal piece may be diagramed:


It would seem that this alternative treatment and the different treatments suggested in seotion 54 each have a use in that each serves to draw attention to different structural features of the verbal piece, In this way the contrasts of simple as against expanded verbal piece, verbal piece with simple or complex ver'b nucleus, and verbal piece with subordinative as against non-subordinative features may each be stressed, the primary divisions in each case drawing attention to one or other of these contrasts.

Since all these features arerelevant to the Jebero verbal piece each of these treatments adds to the complete understanding of the gramatical struoture. They may, therefore, be considered alternatives.

## 57 Other pieces of the favourite sentence-types

## 571 General remarlss

The two favourite sentence-types both contain a verbal piece and may also contain a vocative piece while one of the two sentence-types always contains a nominel piece. There aro, thus, two other pieces besides the verbal piece and this section describes these two other pieces briefly. A comparison of the nominal piece, vocative piece and nominal phrases of the verbal piece is also made.

## 572 The nominal piece

The nominal piece only occurs in the class II sontence-type, $\$ 442$.
The nominal piece comprises one or more nominals or nominal phrases functioning as subject in the maner desomibed in section 4424 . Usually the nominal piece comprises only one nominal or nominal phrase but occasionally it is found to comprise two, or rarely, three nominals or mominal phrases. Such nominals or nominal phrases are in a relationship of apposition to each other, and may be found either following each other or discontinuously in the sentence.

The nominal phrase whioh is (part of) the nominal piece is similar in every respect to the nominal phrase of the verb expansion as described in section 5531, except that the head of the nominal phrase of the nominal piece may be suffixed by members of groups $A$ and $E$ but not $B$ and $C$ and $D$ of the non-verbal suffixes, 883 .

For other details of the nominel piece see section 442 .
Examples:


The vocative piece may occur by itself as a non-favourite sentence, or as part of a sentence, i.e. as a part of sentences of sentencemtypes classes I to VI, $\$ 43-46$.

The vooative piece comprises a nominal phrase or a single nominal of the sub-class noun. pramples of a nominal phrase functioning as the vocative piece are very infrequent and al ways limited to a single nominal as head and a single adjective as expansion. In theory any noun may function as a voce'tive piece but in the material examined a very restricted number of nouns are found as the vocative piece. This may, in pari, be due to the nature of the material and it is probable that situations could be envisaged in whioh many more nouns might function as the vocative piece. For this reason this restricted distribution of the noun is not treated as a structural feature and a separate class of noun is not set ups instead this limitation is treated as situational in character.

When the vocative piece is part of sentence-types of class I - VI, it is found to be in a paratactical relationship to the other pieces of the sentence struoture. For example, in class I sentence-type the vocative piece is in no sense part of the verbal piece as it clearly cannot be regarded either as head of the verbal piece since this is always a verb or as peat of the expension of the veribal piece since it is not in a subordinate relationship to the verb whioh is the head of this endocentric construction.


574 A comparison of the nominal piece, vocative piece and nominal phrases of the verbal piece

The nominal piece, vocative pilece and nominal phase of the verbal piece might seem to be very similar in structure in that all three comprise a nominal phrase. However, certain formal distinctions clearly mark out each as separate from the other in structure as well as in function.
a) The nominal phrase of the nominal piece is distinguished from the nominal phrasesof the vocative and verbal pieces in that it is in a subject relationship to the verbal piece and this is marked formelly by agreement of person and number between the nominal piece and veribal piece and by the potentiality of suffixation by -1 on, 自 442 , whereas the nominal phrases of the vocative and verbal pieces stand in no such relationship to the verb head of the verbal piece with whioh they occur.
b) The nominal phrase of the vocative piece is distinguished from the nominal phrases of the nominal and verbal pieces in that the vocative piece is almost always in final position in the sentence whereas the position of the other two types of nominal phrase is relatively free. Furthermore sentences referable to a structure comprising a vocative piece are marked by different intonation tunes from sentences referable to structures comprising nominal and verbal pieces, 8472 .
c) Some nominal phrases of the verbal piece, namely those with adverbial function, 55314 , are distinguished from nominal phrases of the nominal and vocative pieces in that the head nominal of such phrases is always found suffixed by members of groups B and C of the non-verbal suffixes, $\$ 832$, whereas the head nominal of phrases of the nominal and vocative pieces are never found suffixed by any member of the groups $B$ and $C$ of the non-verbal suffixes.

Chapter Six The word, word classes, word suffixes and interjections

61 General remarks

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674 Chart of word suffixes
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The interjection and pause form

This chapter talres up the word and shows how i.t is formally established as a linguistic element, $\$ 62$. Different classes of word are set up and within these classes sub-classes. All classes and subclasses are formally based, 63, 65 and 66. Thus all words are assigned to one or other word class and to one or other sub-class.

The ohaptor also distinguishes the different types of suffix found and deals in full with one class of suffix, the word suffix, which may be found with words of any class, 164 and 67 . The last section of the chapter deals with the interjection and pause form.

62 The word

621 Definition of the word

The word is defined on the basis of both gramatioal and phonological criteria.

6211 Phonological criteria

Bvery form having,
a) one full stress, or, in the case of cormpound words only, at least two full stresses, ${ }^{\text {s }} 624$,
b) potentiality of pause immediately before or after it,
is a wrord.
The great majority of words may occur as one word sentences in sentence-types of all classes except class II, so that a further phonological oriterion is potentiality of silence before and after most words.

6212 Gramatical oriteria

The word is defined as a minimal free form and the tests of independence, relative fixity of internal structure and absence of interruption by other forms, though not wholely applicable, are largely so.
a) Independence. As has been stated above most words may occur as sentences. Any form that may be preceded and followed by silence is a word uniess, of course, it is several words together.
b) Relative fixity of the internal structure of words. The internal parts of Jebero words may be grouped into five main categories: profixes, stems, extensors of the stem, olass suffixes and word suffixes, 564, 71. and 81. A Jebero word may comprise morphemes from any, or all, of these categories and may contain more than one morpheme of each category, subject to certain limitations which are stated in the relevant sections. The order of morphemes within the word is fixed in that morphemes of these different categories always occur in the order listed above, though when words comprise two or more morphemes of the same category the order of the morphemes is not always fixed though for a majority of morphemes it is fixed.

Thus there is relative fixity of the internal structuring of the word, though this is not thecase within certain restricted and well. defined limits. The sections dealing with each of these categories of morpheme give full details of the circunstances under which transposition is possible, e.g. $\frac{\text { g } 73 .}{}$
c) Relative constancy of internal struoture. There is, to a large degree, absence of interruption of the internal structure of words by other forms, or by pause.

Certain words comprising two or more morphemes may be said to correspond to other words whose internal structuring is identical except that an additional morpheme is found between the morphemes corresponding to the two moxphemes which the shorter word contains. Thus, for example, verb forms including one extensor may correspond to verb forms identical in every respect except that a second extensor is found, either between the stem and the extensor or between the extensor and the inflectional suffix. Similarly verb forms containing one expanding prefix correspond to verb forms identioal in every respect except that a second prefix is found between the morpheme corresponding to the prefix of the shorter word and the stem oorresponding to the stem of the shoriter word.

Furthermore, in the description of verb stems, 72 , it is stated that certain stems contain a verb root and a nominal root. These stems may be said to correspond to stems oontaining a verb root only and the nominal root which follows the verb root in the larger stems and precedes the inflectional suffix may be said to be an interruption of the shorter words. As willl be seen in the sections dealing with the stems of the different word classes this type of interruption is not common, o.f.

For the majority of words, then, it is true to say that their internal structuring is constant, there being no possibility of interruption by other free forms.
d) Substitution. In a single word there is normally only one element for wich a large number of substitutions can be made. When this test is applied to Jebero words it is found that there is only one element in any word which can be substituted by a. large number of other morphemes and that other elements in the word nay be roplaced by members of limited series of morphemes only.

There are two types of word, the simple word and the compound word.

623 The simple word.

Bvery word which has one full stress only is a simple word.
The prosodio feature of full stress is found on certain fixed syllables only in the simple word. Full stress occurs on the first syllable of monosyllabic and bisyllabic words and on the second syllable of all other simple words except
a) when such words are suffixed by the following woxd suffixes, $-a \% \mathrm{ca},-\mathrm{a}$ ta\%, -ci, mong and muntana, 5673 and 3444,
b) when emphatic stress occurs, $\$ 3445$,
and
c) instances noted in section 3443 .

Every word which has more than one full stress is a compound word.
Compound words ocour comparatively infrequently. In the texts examined there have been a little over a hundred examples. In each case the compound word has a verb with a suffixed root stem, 7232.

Full stress falls upon the first syllable of the single or reduplicated stems of these words and upon the second syllable of the post-stem elements of the word unless those elements are of two or less syllables in which case full stress falls upon the first of these syllables.

The stress pattern of compound words bears resemblance to simple words in that the post-stem elements are stressed in a similar manner to that of the simple word, $i$. $e_{\text {e }}$ stress falls on the first syllable of monosyllabic and bisyllabic words and on the second syllable of all other wordso Since each reduplication of the stem element is also marked by stress it would be possible to treat the compound word as a series of words on a wora phrase from the phonological point of view, each repetition of the stem and the post-stem elements alike being treated as individual words, each having full stress. However, this treatment is rejected since neither the stems nor the post-stem elements occur in isolation elsewhere. As regards the sterns this argunent is hardly sufficient since these stems do not, in fact, occur elsewhere, but as regards the post-stem elements this feature seems conclusive since the se elements occur frequently as part of verib forms whioh are simple words. Since the post-stem elements are everywhere else bound forms, they are treatod as such when found with the reduplicated stems, and so the compound word is set up and these forms are referred to this rather than to some sort of phrase which might otherwise be set up.

Compound words are distinguished orthographically from simple words in that the reduplicated stems are followed by a hyphen as below:
su'-su2-su'-a tapadi 'he made the noise of sucking' A20

## 63 Criteria for word classes

The verbal piece and other parts of the sentence have been described in terms of structures which are made up of words. Every Jebero word is assigned to one of four word clesses and the structuring of units larger than the word is stated in terms of these word classes.

The term word olass is used deliberately though in some respeots the term stem class could be used as adequately. Sone linguists would deny the word any status as a unit in the linguistic system, and treat the word only as a ruit in the sentence. This point of view is not adopted here, though the material could very easily be rewritten from this standpoint. The approach here, for example on the analysis of the text, has been to assign every word to some word class rather than to assign the stems of each woxd to stem classes. However, if the use of word classes is rejected, four stem classes could be set up with exactly the same oritoria as are used to set up these word classes. This analysis does establish stem classes but on a rather different basis. In chapters 7-9 classes of stems are set up on morphological grounds, as part of the description of tho internel structuring of the members of the different word classes. These stem classes completely overlap the sub-classes of the word classes set up in this chapter and do not represent a further sub-division of theso sub-classes. Thus the nembers of word classes of this chapter are sub-divided in two different ways. On the grounds of syntaotio function sub-classes termed subolasses of the word classes are set up, while on the basis of moxphological structuring sub-classes termed stom classes are established.

The following sub-seotions discuss first the general oritexia used in the establishment of the four word classes and then give the detailed criteria for ach word class and sub-class in turn.

631 General criteria
Gramatical criteria provide a basis for the formal establishment of word classes. Though phonological features serve to furnish a basis for the definition of the word as such in the language, such features do not distinguish different classes of word. However, when gramnatical criteria have marked out stem and affix and provided a basis for word classes differences in the phonological structure of the stems of different word classes may be noted, 目 3422.

Syntactio function has been traditionally, and is in this analysis, the chief oriterion for the establishment of word classes. However, morphological features are used to give a formal definition of the four word classes, while syntactic features are used to define further subclasses of the four main classes.

This is not meant to imply that word classes are set up on the basis of morphological considerations to the exclusion of syntactic considerations. In fact, word classes are primarily syntactically based. As a secondary factor it may be stated that the present analysis has sought to esteblish word olasses so as to give the greatest possible degree of clarity and comprehension for the statement of both the morphological and syntactic features of the material. Traditionally, syrtactic considerations have always been the chief factor in the setting up of word classes, or parts of speech, and this analysis is not discarding syntactic considerations. However, it has been found that the word olasses that seemed necessary for the analysis are more simply defined on the basis of their morphological. features, though this does not mean that these classes could not be differentiated syntactically, as indeed they have been in the preceding chepters, and, if necessary, defined syntactically. There is here, then, a distinction between the syntactic factors which have largely determined the word classes and the morphological features whioh have been used to provide a formal definition of these classes.

The morphological criteria involved in the establishment of these four word classes concern the distribution of the word stems with various suffixes and, in particular, with three groups of suffixes. The detailed partiouler oriteria of each of the four word classes are given in the following sections.

632 The verb

Every word comprising a stem and an inflectional suffix of the paradigmatic closed series of suffixes described in section 74, is a member of the verb word class.

There is a second criterion for the establishment of the verb as a word class, namely, potentiality of prefixation. Every word which is, or hasthe potentiality ofrbeing;'prefixed is-é verb. This prefixation is facultative not obligatory since verbs are not always found containing a prefix. Every prefixed form is found to be a verb according to the definition given above, with one group of exceptions. Certain nominall stems are derived from verb stems, and comprise a verb stem and nominal derivational suifix, 8824 . These nominal stems may comprise a verb stem which itself is procoded by a verb expanding prefix; prefix, verb stem and derivational suffix forming a nominal stem. Apart from this all prefixed forms are verb foms and conversely all verbs may be found prefixed, with the exception of one verb. There is one stem which occurs with an inflectional suffix of the paradigmatic series and is thus by definition a verb stem, but which is never found preceded by a prefix. Forms with this stem also show very extensive limitations in
syntactio function and in morphological structure, 1 76. It would, therefore, seem best to treat this word as a defective verb.

Suffixes which are found as part of verb forms are of two classes, verb suffixes, including both extensors and infleotional suffixes, and word suffixes. Verb suffixes are those which are found alvays with verb stems and never with stems of other word classes, 871,73 and 74. Word suffixes are found as elements of all olasses of words, 564 and 67 .

633 The partiole
Every word which may ocur, either without suffixation, or suffixed with the word suffix olass only, is a particle.

All particles comprise a stem which frequently occurs as a word without any affixation, 694 . All particles have the potentiality of suffixation by the members of the word suffix class and are never found surfixed by any member of the other classes of suffix, 864 and 67.

634 The nominal

Every word which may occur without sureixation and
a) has the potentiality of suffixation by any and every member of the non-verbal class of suffixes,
and/or,
b) has the potentiality of suffixation by order 8 of the non-verbal class of suffixes only when a member of order 7 of that class of suffixes precedes the member of order 8, 目 833 ,
is a nominal.
Non-verbal surfixes form a class of suffixes distinguished from the other two classes of suffix already mentioned in their distribution. Non-verbal suffizes are only found with stems of nominals and adverbs, never being found with the stems of verbs or particles, 864.

The oriteria a) and b) stated above are not in complementary distribution Either of the two criteria is sufficient to establish the word olass of any one word even if the other criteria is inappliceble. Two criteria are given since in a number of instances one or other of the two is inapplicable owing to collocational limitations. In no instance are these two criteria contradtotory. In all cases if criteria a) or b) is applicable from the structural point of view it may be assumed the absence of forms exemplifying the alternative oriterion is due solely to collocationall or stylistic limitations, i.e. not to structurel factors. It would, therefore, seem best to treat these two criteria as collocational sub-classes of oriteria with an overlapping application determined solely by collocational factors. Alternatively it would bo possible to set up threo sub-olasses of nominals on the basis of the applicability of criteria a) or $b$ ) or both criteria. But since these differences in distribution can be handled at the oollocational level and do not appear to reflect any significant structural feature, it seems advisable to treat them as sub-classes of criteria, collocationally determined.

[^2]Every word which may occur without suffixation and
a) has the potentiality of suffixation by any menber of the non-verbal class of suffixes, except suffixes of orders $2,3,4,10,13,14$, and 16 of this class of suffixes, and/or,
b) has the potentiality of suffixation by order 8 of the non-verbal class of suffixes without a member of order 7 preceding the member of order 8,
is an adverb.
In the case of adverbs, as in the case of nominals, these criteria a) and b) are not in complementary distribution. Either oriterion is sufficient to establish the class of any word but since in a number of instanoes one or other oriterion is inapplicable owing to collocational limitations it js necessary to state both oriteria. In no instance has any word exhibited characteristics which would establish a conflicting variance betwen criteria a) and b). These two criteria are, therefore, treated as collocational sub-classes of criteria.

Adverbs and nominels share certain morphological features: both alike oomprise stems wich may occur alone without further suffixation, and both may be suffixed by the non-verbal class of suffixes. They are distinguished, however, by the fact that adverbs are not found suffixed by members of groups $D$ and $E$ and a $f e w$ members of group $A$ of the nonverbal class of suffixes and by a difference in the distribution of order 8 of the non-veribal suffixes with these stems, as stated above.

Adverbs and nominals are further distinguished syntactically, since they may function in different types of phrase as described in section 553. A furtiner syntactic difference may be stated. Whereas all nominals may be found as part of a nominal phrase only a small number of adverbs are found functioning in adverb phrases, $\$ 5533$.

64 Correlation of the suffixial system and word class system

By way of summary the correlation of the suffixial system and word class system may be stated.

Suffixes are grouped into three classes, word suffixes, verb suffixes, and non-verbal suffixes. The distribution of these classes is as follows:


65 Theoretioal statement of the word olass system
The word class system of the Jebero language may be stated as a series of binary oppositions as follows:

Obligatory/optional suffixation. This oriterion divides words into verbs and non-verbs, all verbs having obligatory suffixation whereas other words have facultative suffixation. Potentiality/non-potentiality of non-verbal suffixation. This criterion divides non-verbs into nominals and adverbs on the one hand as opposed to particles on the other, since particles have no potentiality of suffixation by the nonverbal class of suffixes whereas nominals and adverbs have this poteniality.

Potentiality/non-potentiality of groups $D$ and $E$ non-verbal. suffixation, and/or occurrence/non-occurrence of 7 th order surfixes whenever 8th order non-verbal suffixes are found.
This cri terion divides into nominals and adverbs, nominals having potentiality of Groups $D$ and $E$ suffixation and occurrence of 7 th order suffixes whenever 8 th order ocour, whereas adveribs have no such potentiality and no such distribution with 7 th and 8 th order suffixes.

This may be presented in tabular form:

| OBL IGATORY SUBPIXAPION | OPTIONATSUTTIXATION |  |  |
| :---: | :---: | :---: | :---: |
|  | Non-potentiality of non-verbal. suffixation | Potentiality by non-ver | of sureixation al suffixes |
|  | PARTICLE | Potentiality of group D and E suffixation and/or obligatory 7 th order with 8th order suffixes <br> NOMTNAL | Non-potentiality of group D and E suffixation and/or <br> 8th order suffixes without 7 th order <br> ADVERB |

## 66 Sub-classes of word classes

## 661 General.

In general, syntactic oriteria are used to establish the different sub-classes of the various word classes.

Two sub-classes of the verb are established and all verbs are referred to one of them.
Sub-class 0 comprises all verbs which nay be preceded or followed by an included clause and comprises the following members:
itu- 'say', kanali- 'order', lawok- 'hear', min 'see', tu- 'say', wintu- 'tell'.

Sub-class $N$ comprises all verbs which are not associated with an included clause, $\$ 5523$, i.e. all verbs which are not members of sub-class 0 .

Particles are divided into two sub-classes, deictio and nondeictic.

Sub-oless D, deictic particle,
comprises all particles that are found in deictic sentences. See section 451 on deictic sentence-types. This sub-class contains a relatively small number of members and the sub-class may be listed exhaustively as follows:
ma"asu" 'here', ma"atu" 'here it is', ma"ata"na 'there it is', ma'namasu' 'there it is', ma'atasu' 'here it is', namasu? 'that is... ${ }^{\prime \prime}$

Sub-class N, non-deiotic particle, comprises all particles that are not members of sub-class $D$.

664 Sub-classes of the nominal

Four submolasses of the nominal are established and one of these has further sub-classes.

These four sub-classes are the noun, adjective, pronoun and relative. They are established on the basis of function in the nominal phrase.

6641 The noun

Every nominal which functions as head of a nominal phrase, but only functions as, or as part of, the expansion of such a phrase when suffixed, is a member of the noun sub-class.

6642 The adjective
Every nominal which functions as head of a nominal phrase and which may also function as, or as part of, the expansion of a nominal phrase without suffixation, is a member of the adjective sub-class.

## 6643 The pronoun

Every nominal which never functions as head of a nominal phrase and which functions as, or as part of, the expansion of the nominal phrase only when suffixed, is a member of the pronoun sub-class.

6644 The relative

Every nominal which never functions as head of a nominal phrase and which functions as, or as part of, the expansion of the nominal phrase without suffixation, is a member of the relative submolass.

6645 Table of sub-classes
This division of the nominal word class into four sub-classes may be shown in tabular form as follows:

| FUNOTIONS AS HEAD | NSVER FUNCITONS AS HEAD |  |  |
| :---: | :---: | :---: | :---: |
| Functions as <br> expansion only <br> with suffixation | Functions as <br> expansion <br> without <br> suffixation | Functions as <br> expansion only <br> with suffixation | Functions as <br> expansion <br> without <br> suffixation |
| NOUN | ADJECTIVE | PRONOUN | RELATIVE |

Symbols and Examples:
$n-$ noun, $a \rightarrow$ adjective, $p \rightarrow p r o n o u n, r-r e l a t i v e$.
nuy $n$ 'canoe', kala a 'three', ka'a'su' $x$ 'that which he ate', kwe $p$ 'I', kogma $p$ 'you', ma?kasu? $r$ 'that which I gathered', pidok $n$ 'house', a? iupi a 'large'.

## 6646 sub-classes of the adjective

The sub-class of adjectives is further divided into three subclasses, deictic, interrogative, and general adjective.

Sub-class D, deictic adjeotive,
comprises every adjective that, while occuring freely in many sentence-; typers is also the obligatory component of class III deictic sentencetype, 6 45.

This sub-class has only two nembers:
asu' 'this, nana 'that'.
Sub-class I, interrogative adjective,
comprises every adjeotive that has the potentiality of occurring as the obligatory component of a class $V$ interrogative sentence-type. This sub-class is very small and may be listed exhaustively as follows: ampu’du 'how many', empu'ni 'hovever large', ənkasu? 'which', ma?- 'what'.

The category of interrogative used here and for the description of sentence-types of olasses $I$ and $V,\{443$ and 4.53 , and for the interrogative adver'b, \& 665, is not to be equated viththe notional category of question, for though in the great majority of sentences where the category is relevant the notional category of question is also relevant, in some sentences the notion of suxprise and exclamation rather than question is relevant. This is particularly the case where the interrogative adjective empuini is found, since its translation meaning is almost always exclamatory.

Sub-olass G, general adjective,
comprises all adjectives which are not members of sub-classes $D$ and $I$.

Three sub-olasses of the adverb are established, namely, phrasal, interrogative and general adverb.

Sub-class R, phrasal adver",
comprises all those adverbs wich are found as head of an adverb phrase, 5 5533. This class contains a comparatively small number of menbers and the sub-olass may be listed exhaustively. The members of this subclass though few in number are amongst the most frequently occurring adveribs.
ðasupla 'moming', ðasupwalok 'very early morning', dekpiłi' 'right', ðukər 'month', okkilala 'summer', arwa 'afterhoon, late', akti 'tomorrow', ya' 'yesterday' ikinokzi' 'miadle of tho might', napi' 'long ago', tamutu' 'noon', uta 'evening'.

Sub-class I, interrogative adverb,
comprises every adverb whioh while occurring freely in many sentencetypes i.s also the obligatory component of class $Y$ and $V$ sentence-types. This submolass is very small and may be listed exhaustively as follows: empulu 'at what hour?', enupa' 'where'.

Sub-class G, general advorb,
comprises all those adverbs which are not members of subeclasses $F$ and $I$.

67 The word suffix

671 General remarks

The olass of affix designated word suffix is a closed system of suffixes comprising some 17 members which are listed below.

All words, of whatever class, may be suffixed by a member of the word suffix class, and a very great variety of words of all classes have been found so suffixed in the material examined. This suffixation is in addition to any suffixation by suffixes of the classes of verb or non-verbik suffix. Only collocational restrictions limit the distribution of the word suffix with individual words in particular sentenoes.

Any suffix which is found with every olass of woxd is a word suffix.

672 Classes of word suffix

The 17 members of the word suffix series are arranged in eight classes. Wach class comprises one or more suffix and the members of each class are mutazily exclusive with any other member of the same class.

These classes are termed orders. An order is a class of matually exclusive affixes occurring in a fixed position in relation to other orders.

The different orders are numbered in a manner that inaicates their position in relation to each other and to the stem of the word conoemed. This numerical arrangement i.s according to the linear position of each order counting from the stem outwards. Thus, for example, a member of order 7 will precede a member of order 8 when both ocour in any one word, unless otherwise stated in the next section, 673, dealing with each order in turn.

In principle any momber of one order may oocur with any member of another order, except when the contrary is stated in the next section, 673, and with the limitation already stated that such combinations do not usually exceed three word suffixes in any one word.

The eight classes, or orders, of word suffix may be set out in tabular form as follows:


Members of the word suffix class always follow any member of the other two suffix classes. Thus in the case of verbs, members of the word suffix class when present always follow the obligatory verb inflectional suffir. In the case of nominals and adverhs, word suffixes always follow any optional non-verbal suffixes present. In the case of particles members of the word surfix class always follow the stem of the particle and no other type of suffixation is possible.

Any word may include more than one word suffix though in the majority of instances when they occur one word suffix only is found. However, words with two word suffixes are not uncoinmon and some occur with three word suffixes. Words having more than three word suffixes are rare, though theoretically combinations with up to seven word suffixes are possible.

673 The orders of word suffix

The 8 orders of word sufitw are listed below and the following details concerning each onder are given:
a) its nembership,
b) any relevant comment with regard to its distribution with words,
o) any relevant details regarding its distribution with other orders and in partioular,
(i) any other order which is always found with the partioular ordor being treated, i.e. any other order which the occurrence of the particular order presupposes but not necessarily vice versa,
(ii) any other order which never occurs with the particular order, i. o. whioh the occurrence of the particular onder excludes,
a) some examples. In these examples the partioular word suffix being illustrated is underlined.
Order 1
Order I comprises one rember,
















Order 3
Order 3 comprises one member,
-pi" "though"
Order 3 is always found with a member of either order 4 or 5 . Order 3 is not found with a member of order 1 except when followed by order 4. Order 3 is not found with a member of order 2 except when followed by a member of order 5 .
0.27 .19.
1.19.18.
10.24 .8.
 -talla 'at least, even,'
 material examined.

Order 2 is not found with orders 3 or 4, except when Order 2 is not found with orders 3 or 4, except when
order 3 is followed by order 5 . Examples: R.64.1. 0.37 .1. 'Give me water even." (when nothing else available) ñita 1 la anกีiคñi luz electrica
'It does not even have électric light.'


| Order 7 (continued) |  |
| :---: | :---: |
|  | $\begin{gathered} 1.16 .2 . \\ 10.28 .20 . \\ \text { R.62.1. } \\ 10.28 .7 . \end{gathered}$ |
| Order 8 |  |
| Order 8 comprises two members, -ci 'emphatic used by men' <br> -tan ' " " $n$ women" <br> There are a number of variant forms of -ci, including -cai and -cen. Any one speaker tends to use only one form habitually and any analysis of any one iajolect would. probably reveal only one of these forms. |  |
| examined though some speakers use them much more of ten than do other speakers. |  |
| Examples: .. |  |
| ipi ${ }^{2}$ maci atwapilasikima ... <br> 'inow indeed when it is getting late. | 10.3.4. |
| asi'na supay nuka'aci. 'Bu't this is a demon indeed.' | B4, |
| ma"pu’təcəka"ta" asu" uruci. <br> 'Whatever shall I do with this deer indeed.' | 1.12.6. |
| saka?tulanter. <br> 'You have worked.' (when husband ill and can't) | RO. |

Order 7



解 -untana after words ending with a consonant. Some members of order 7 are found very much more frequently than others. The two suffixes -iPna and -a? occur very frequently, $-a^{9}$ ta? and $-a^{2}$ pa are not uncommon, whereas the suffixes -apa- and -untana are quite rarely found.
marki?na pilirtapala. 'But why did you catch it?' 10.17.3. pasunkunsikiminna ipaPlinci... 'But when it tied up...' 03. ñapalånca, faya, itukuñima. C8. "Are you there, lady?"he went and said. ' anupa?la'nca kərnema' woklama'. 'From where have you come?' Bl8. 'Have you climbed here?' 1.43.1. 'Whatever demon is this?' B36. 'Shell I come and shoot it?' 1.12.19. 1.57.14. B60. ipa? la? ka ka? acin. panti'na?nka ... pa'apanansu"wa.


Presupposes
4 or 5
$\left.\begin{array}{cccccccc}\text { Excludes } & \begin{array}{c}3 \\ \text { except except except } \\ \text { with } 4\end{array} & 2 & \begin{array}{c}5 b \\ \text { excludes } \\ 5\end{array} & 5 \mathrm{with} 4\end{array}\right)$

The interjection and pause form

Oconsionally some of the phonic material of the sentence is not allotted to any word of the sentence-type. The category of interjection is established and all suoh sequences of sounds are referred to this ategory. Interjections are not words since, phonologically, though they may be marked by stress, the stress pattern is not that of the word and they are not found both preceded and followed by silence, and grammatically, they are not found with the morphological patterms or syntaotic functions that all words show.

The interjeotion should be distinguished from the pause form ma?i '..er..', which functions as a form which may substitute for the root of any wacd class.

The pause form is treated as a word since, phonologically it is marked by stress in exactily the same way as the simple word, and grammetically, it has the some syntactic function and morphological pattern as the members of the other word classes. Thus, it is found functioning as a verb stem, followed by verb extensors and one member of the infleotional paradigmatic series of verb suffixes and in this form may function as the verbal head of a verbal piece. Similarly it is found as a nominal stem of any sub-class, with the non-verbal suffixes exactly as described for the nominal in chapter eight, and entering into nominal phrases as described in section 553. Similarly it may be considered as an adverb or a particle. Very frequently when the pause form occurs it is followed by a word exhibiting a morphological. structuring and having a syntaotic function exactily similar to the pause form itself, in that particular occurrence.

Symbols and examples: I-interjection PF - pause form

| ma?iwekkek PF (N) | piðolwokkek N | $\underset{V}{p a n d a}{ }^{\circ} \mathrm{a}$ |
| :---: | :---: | :---: |
| VX |  | VH |
|  | $\begin{aligned} & \mathrm{VP} \\ & \mathrm{STI} \end{aligned}$ |  |

'Let's go to my ..er.. to my house.'
73. Flements within the verb

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The verb ex panding prefix:
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Summary and diagram of the structure of the verb

## 77 㫙ements within the verb

The Jebero verb may comprise the following elements, expanding prefix, stem, extensor of the stem, inflectional suffix and word suffix. Subsequent sections in this chapter will deal with each of these elements in turn and state any limitations in the distribution of the various elements with each other. Section 72 will describe verb stems, section 73 verb extensors, section 74 vexb inflectional suffixes and section 75 verb expending prefixes. Word suffixes are treated in section 67.

In its mininum form the verb always comprises stem and one member of the class of inflectional suffixes. Buery verb includes these two elements, irrespective of any other element that may be found. The maximum form for the verib is never found sinoe in its most expanded form the theoretical maximum would be a form comprising 5 expanding
prefixes, one stem, which might comprise several morphemes, 1.6 extensors, 1 inflectional suffix and 6 word suffixes. In fact, no such forms are found. Verbs comprising up to 10 morphemes are found, e.ge two prefixes, stem comprising two morphemes, three extensors, one inflectional suffix and two word suffixes. Longer forms are vexy rare.

Symbols and Examples:


72 The ver'b stem
721. Definition of the verb stem

The stem of a verb is that element which together with a member of the inflectional suffix class only and without further affixation may function as a verb.

## 722 Classes of verb stem

Verb stems always comprise a nucleus element and may also comprise a satellite element or elements. There are three types of nucleus.

Stems are divided into three classes on the basis of the types of nucleus which are found as parts oif stems.

Class I Verb stems are those whose nucleus is a verb root. This class is described in section 723.

Class II Verb stems are those whose nucleus is a nominal stem, This class is dealt with in section 724 .

Class III Verb stems are those whose nucleus is an adverb root. This olass of stems is treated in section 725.

The satellite elements of verb stems will be described in conjunction with the different nuclei with which they are found

Symbols and Examples:

| VSI | - | verb stem of class I, verb root nucleus stems |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| VSII | - | is | $"$ | $\\|$ | II, nominal stem nucleus stems |
| VSII | - | " | " | " III, adverb root nucleus stems |  |


| parzi | $\begin{aligned} & \text { par- } \\ & \text { VSI } \end{aligned}$ | $\frac{ - \pm i}{\operatorname{ViSx}}$ | 'he went' |
| :---: | :---: | :---: | :---: |
| pidel ${ }^{\text {a }}$ wañi | piǒoltwanm VSII | $\begin{array}{r} \text {-nii } \\ \text { ViSx } \end{array}$ | 'he has a house' |
| weypu? ${ }^{\text {a }}$ i | woypu²- <br> VSIII | $\frac{-\mathrm{in}}{\mathrm{ViSx}}$ | 'it is like something far away' |

723 Class I stems - verb root mucleus verb stems

7231 Definition of class I stems

All verb stems which comprise a verb root, with or without other elements, are verb root nucleus verb stems.

Olass I stems are divided into a number of sub-classes according to the different nuclei and satellite elements of which they are comprised.
Sub-class a, single root stem, comprises a single verb root without any other element. Ary verb root of verb root class Ia or Io or Id, or III may be found in a la verb stem, 57263.
Sub-class b, suffixed reot atem, comprises a rerb root which is usually repeated two or more times and always followed by a member of the class 1 verb stem forming suffix series, 5729 . Any verb root of verb root class Ib or Io may be found in a Ib verb stem.
Sub-class $c$, double root stem, comprises two verb roots of different root olasses, the first of which functions as nucleus and the second as satellite element, without any other element. The first verb root is a member of the root class Id, and the seoond verb root is a member of root classes ITb or IIIb, $\$ 7263-5$.
Sub-class d, prefixed root stem, comprises a verb root prefixed by a member of the verb stem forming prefix series, \& 728 . Any verb root of root cless II or III may occur in a Id verb stem.
Sub-class e, verb root and nominal root stem, comprises a nucleus which is a ver'b root followed by a nominal root in a satellite relationship. There may also be other satellite elements in these stems depending upon the type of verb root, since verb roots may or may not be prefixed, reduplioated or doubled. The verb root in such stems may be of root classes I, II or III but must be of root class A, 7266. The nominal root is limited to those of class A nominal roots, 88266.

Submolass e may, therefore, be regarded as an expansion of subclasses a, b, c and d, since any stems of these sub-classes may be paralleled by stems identical in every respect except that a nominal root is found in final position in the stem.

Symbols and Examples:


724 Class II stems - nominal stem nucleus verb stems
724.1 Definition of class II stems

All verb stems which comprise a nominal stem followed by a verb stem forming suffix are norninal stem nucleus verb stems. All class II stems comprise these two elements, the nominal stem and the verb stem forming suffix. Generally the nominal stem consists of a single nominal root but any type of nominal stem may be found inoluding those whose nucleus is a verb stem. Furthermore, the nominal stem may be followed by a non-verbal suffix preceding the verb stem forming suffix.

Class II stems are re-divided into a number of submolasses acoording to the different satellite elements which are found with the nominal stem nucleus.

Sub-class a stems comprise a nominal stem followed by a member of class 2 of the verib stem forming suffixes, 57292 . Any nominal stem may occur in class ITa verb stems and the only limitations are collocational.

Sub-class b stems oomprise a nominel stem followed by a olass $3 b$ verb stem forming suffix. Only certain nominals occur in class IIb verb stems, i.e. nominals with roots of class J, 8867. A small number of IIb ver'b stens comprise a non-verbal suffix in addition to the nominal stem and verb stem forming suffix. Only one member of the non-verbal suffixes is Pound, mkek 'at, by, on' and it is always found following the nominal stem and preceding the verb stem forming suffix. It should be stressed that very few instances of this type of class ITb stem have been found.

Submelass c stems comprise a nominal stem followed by a class 3 a ver'b stem forming suffix, $\delta$ 7292. Any nominal stem may occur in class IIo verb stems.

A few Jebero verb stems comprise a single element which might be regarded as either a verb or a nominal root nucleus verb stem. The present analysis treats these forms as verb roots which are paralleled by an identical homophonous nominal root. It would also be possible to treat these elements as nominal roots whioh may occur in class II nominal stem nucleus verb stems. In this case it would be necessary to set up a fourth sub-class of olass IT stems, sub-classd, comprising. nominal root alone and such roots would constitute a further submclass of the nominal root. This would also necessitate redefining a number of terms, e.g. verb root, 8 726. As these forms are few in number it seems that a clearer picture of the language results from regarding them as homophonous ver'b and nominal roots than by setting up new categories and classes which would otherwise be unnecessary. Such an alteration would only serve to distort the main struotural picture.

Symbols and Examples:


725 Class III stems - adverb root mucleus verb stems

7251 Definition of class III stems
All verb stems which comprise an adverb root are adverb root nucleus verb stems, Class III stems always comprise two elements, the adverb root and the verb stem forming suffix.

7252 Description of cless III stems
All class III stems comprise an adverb root and a olass 2 verb stem forming suffix. Any adverb root may occur in class ITI verb stems.
Symbols and Examples: VSIII - verb stem of olass III


Any part of a verb which camot be sub-divided into further morphemes and which may occur with or without reduplication or prefixation by a verb stem forming prefix, as a stem, is a verb root. This definition serves to distinguish verb roots from coots of all other classes.

## 7262

## Classes of verb root

Three sets of classes of verb roots are set up. 皿ah set of classes is not a further sub-division of a previous division but a crossclassification a; the same level as the other two sets. One set of three dasses is established on the basis of the distribution of the roots with the verb stem forming prefix series, 87263 and 728. This set is labelled I, II and III and is further subdivided into Ia,b,c,d, IIa,b, IIIa,b, 目 7263-5. Another set of two classes is set up on the basis of the distribution of the roots with the nominal roots within the verb stem. This set is labelled $A$ and $B$ and is not further subdivided, ${ }^{\text {s }}$ 7266. The third set of two dasses is established on the basis of the distribution of the roots within the nominal stem, 8 824. This set is labelled $X$ and $Y$ and is not further sub-divided $\$ 7267$.

This oross-classification of the verb roots may be illustrated in diagram form:

VERB ROOTS

|  |  | I |  |  |  | II |  | III |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | a | b | 0 | d | a | b | a | b |
|  | X |  |  |  |  |  |  |  |  |
|  | Y |  |  |  |  |  |  |  |  |
|  | X |  |  |  |  |  |  |  |  |
|  | Y |  |  |  |  |  |  |  |  |

All possibilities occur
N. $B$. The relationship between $A$ or $B$ and $X$ or $Y$ is not the same as between I and $a, b, c, d$, or II and III and $a, b$. Whereas asb,c,d, are subdivisions of $I$ and $a, b$, of II and III, $X$ and $Y$ are not subdivisions of $A$ and $B$, but categories of a crossclassification.

The three classes of root set up on the basis of the distribution of the roots with the verb stem forming prefix series are,
class I, non-prefixed roots,
class II, obligatorily prefixed roots,
class III, facultatively prefixed roots.
A.ll roots which are only found in verb stems without a member of the verb stem forming prefix series are members of this class.

Class I verb roots are divided into four sub-classes:
Sub-class a, single non-prefixed roots, always occur alone in stems, or with a nominal root. Ia roots are found in class Ia and Ie verb stems.

Sub-class b, reduplicated non-prefixed roots, oocuz singly ox reduplicated in stems with a class 1 stem forming suffix, with or without a nominal root, but with no other satellite elements within the verb stem. Ib roots are found in class Ib and Ie verb stems only.

Sub-olass $c$, single or neduplicated non-prefixed roots, occur either singly or reduplicated in stems of classes Ia, Ib, and Ie. When occurring singly the distribution of class Ic roots within the stem is the same as that of class Ia roots, and when occurring reduplicated their distribution in the verb stem is identioal with that of class Ib roots.

Sub-class d, single or double non-prefixed roots, occur either singly or as the first root in double root stems. Roots of this sub-class are found in stems of classes $I a$, Ic or $I e$.


## 7264 Class II roots

All roots which never occur except either when prefixed by a member of the verb stem forming prefix series or as second root in a double root stem are members of this class.

Class II verb roots are divided into two sub-classes:
Sub-class a, comprises those roots which only oocur with a member of the verb stem forming prefix series. Class ITa roots are found in classes Id and Ie verb stems.

Sub-class b, comprises those roots which may occur either prefixed by a member of the verb stem forming prefix series or as second root in a double root stem. Class IIb roots are found in stems of olasses Ic, Id, or Ie.

| Symbols and Examples: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VRIIa - verb root of class IIa VRIIb - verb root of class IIb |  |  |  |  |  |
| padiperapazi. | $\underset{\text { vasex }}{\stackrel{p a-}{2}}$ | -бiporm <br> VRITa | -apa- | $\begin{aligned} & -\underline{i} \\ & \mathrm{Vi} \mathrm{i} x \mathrm{x} \end{aligned}$ | 'he is smoothing out' |
| korkorapala | $\begin{aligned} & \text { ker- } \\ & \text { VRId } \end{aligned}$ | -mex'VRITb | $\stackrel{\text {-apa- }}{\text { VE }}$ | $\begin{aligned} & -\mathrm{la} \\ & \text { Visx } \end{aligned}$ | 'you are finishing carrying ${ }^{1}$ |
| Tikerrapala | $\begin{aligned} & \text { lim } \\ & \text { VsPx } \end{aligned}$ | -kerb- <br> VRITb | -apa- | $\frac{-1 a}{\operatorname{Vis} x}$ | 'you: are finishing outting' |

All roots which may occur either prefixed by a member of the verb stem forming prefix series, or as second root in a double root stem, or alone as a stem, are class III verb roots.

Class III verb roots are divided into two sub-classes:
Sub-class a, comprises those roots which are found either prefixed by a nember of the verb stem forming prefix series or alone as stems, Class IIIa roots are found in stems of classes Ia, Id or Ie.

Sub-class b, comprises those roots which are found either prefixed by a member of the verb stem forming prefix series on as second root in a double root stem, or alone as stems. Class IIIb roots are found in stens of olasses Ta, Io, Id or Ie. There are very few roots of this class.

## Symbols and Examples:



The two classes of root set up on the basis of the distribution of the roots with nominal roots within the verb stem are:
class A, comprising all roots which are found with nominal roots within the verb stem, and
class $B$, comprising all roots which never occur with nominal roots within the ver'b stem.

Both these classes of root include roots of all three classes already described, classes I, II, and III and all their sub-classes.

Class A roots are found in all class I verb stems, while class B roots are found in all. class I stems except Ie.


The two classes of root set up on the basis of the distribution of the roots with nominal roots within the nominal stem, $\overline{5} 824,2$, are,

Class X, comprising all roots which are found with nominal roots within the nominal stem, and

Class $Y$, comprising all roots which never occur with nominal roots within the nominal stem.

Both these classes of roots include roots of all five classes already described, classes I, II, III, $A$ and $B$, and are found in verb stems of class I.

Symbols and Exomples:
VRX .- verb root of class $X$ VRY - verb root of class $X$

| if aniz | ifanm | mĩi |  | 'it is dried up' |
| :---: | :---: | :---: | :---: | :---: |
|  | VRX | ViSx |  | $c_{0} \mathrm{f}$. il'anek-i 'summer' |
| neripazi | neri.. <br> VRX | $\begin{aligned} & \text { mapa- } \\ & \text { VE } \end{aligned}$ | $\begin{aligned} & -\underset{i}{i} \\ & \operatorname{Visx} \end{aligned}$ | 'he is breathing' <br> c.f. neridelk 'breath' |
| kra? ${ }^{\text {a }}$ k | $\frac{\mathrm{ka}^{2}}{\mathrm{VRY}}$ | $-\frac{1}{\operatorname{ViSx}}$ |  | 'I ate' |

727 Chart of verb stems and roots

A chart showing the correlation between the different classes of stems and roots illustrates the preceding sections 723-726.


This chart does not show the cross-classification of verb roots desoribed in S 7266 and 7267. All Ie stems have class A roots while stems of Ia Id have roots which may be either of class $A$ or class $B$. Class I stems may have roots of olass $X$ or $Y$.

Verb stem forming prefixes may be defined as those prefixes which are found inmediately preceding a root of the verb root classes II or III; prefix and root forming a verb stem. These prefixes form a closed system of mutually exolusive members which may be listed exhaustively.

The following are members of this class of prefixes:

| a | 'perform an action with the foot, but not by kicking' |
| :---: | :---: |
| далп | 'action associated with entering' |
| ða? | 'action performed by falling' |
| ðok- |  |
| ðiņ | ' " associated with one object orossing another ${ }^{\text {t }}$ |
| ðun- | " " " hunting |
| 2K- | 'accompany an action' |
| i- | 'action assooiated with thrusting one object behind or into |
| inm | 'reftexive action' another object' |
| 18- | 'action performed by the teeth' |
| zi- | " " " striking' |
| nu- | " " without visible cause' |
| pa- | " " by stabbing' |
| pada?- | " " " throwing' |
| parm- | " " " a brushing motion' |
| pol- | " " with considerable force' |
| pi- | " " by hand using the palm of the hand. |
| solk - | " " " " " " fingers and thumb' |
| su? - | ' " " " mubbing' |
| tolc- | the meaning of this prefix is indefinite, but it is conneoted with actions done a good deal. |
| tur ${ }^{\text {m }}$ | 'action pexformed by kicking' |
| u- | ' " " $"$ pulling' |
| wi- | " " " embraoing' |

The meanings assigned to each prefix may be regarded as provisional, in that while they cover examples in the texts collected, some of the prefixes do not occur very frequently. This applies especially to the following: ðars dix- ðun-, i-, and tek-. More extended material might well add to or alter in some way the meanings assigned to these preftxes. In any case a translation meaning such as those listed above is an artificial abstraction from the sentences in which these elements are found. It may be oonvenient to make such abstractions but these remain highly artifioial and reference back to the sentence needs to be made frequently.

This list may be regarded as an exhaustive list of this series of stem forming prefixes, and though possibly one or two additions to it might be made with more Jebero material, it does seem clear that it cannot be extended inderinitely or to any extent in oontrast to the class of roots already desoribed. This series of prefixes is, in fact, a closed system.

This inner layer class of verb stem forming prefixes may be contrasted wi th the outer layer class of verb expanding prefixes desm cribed in section 75. Whereas the stem forming prefixes function as elements within the ver'b stem, the verb expanding prefixes are not part of the verb stem but always preoede it. Fuxthermore, whereas verb forms are found with two or more members of the verb expanding class of prefixes, no forms are found with more than one member of the stem forming prefixes since the members of this class constitute one closed system with mutually exclusive nembers.

Symbols and Examples:
VaPx - verb stem forming prefix

Compare the following forms with the same verb root - -diper- :
 Zið 1 perapałi, adiperapałi, sollðiperapazi, suొðiperapazi
All these words desoribe the action of arranging something, the different prefixes give a more specific meaning.

Verb stem forming suffixes may be defined as those suffixes which are found either imnediately following a verb, nominal or adverb root (suffix and root forning a verb stem), or immediately following a. nominal root and non-verbal suffix (nominal root, non-verbal suffix and verb stem forming suffix together forming a verb stem).

## 7292 Classes of verb stem forming suffix

Classes of verb stem forming suffix are established according to the class of root with which they occur. Three classes are set up.

Class 1
Class 1. comprises suffizes which are always found with a verb root. There are two members of this class:
-antu - and -tu- are found before morphemes with $C$ initial structure $-a^{9} t-$ and $-i-$ before morphemes with $V$ initial structure. It is not possible to state any translation meaning for the se two suffixes. They function in a similar way, though it is noticeable that the form -antim has a sort of causative mearing frequently. It is interesting to note the correlation with the verb expanding prefix, $a^{\text {P }}$ - 'causative'. Syntaotioally these two elements, the one a prefix and the other a suffix, are quite different. The two affixes are never found in one verb.

Class 2 (dexivational)
Class 2 comprises suffixes which are found with either a nominal or an adverb root. There is one member of this class:
-pupp 'to be like....'

Olass 3 (derivational)
Cless 3 comprises suffixes which are found with a nominal root only. There are two sub-classes of this class.
Sub-class 3 a, is found with any nominal root and comprises the suffix, -wan- 'to be in possession of....'
Sub-class 3b, is found with only certain nominal roots, i.e. roots of class J, \& 8267, and oomprises the suffix,
-tum ~-t-,
-tu- is found before morphemes with C initial structure, and -t- before morphemes with $V$ initial structure. No translation meaning may be assigned to this suffix.

The three classes of suffix fall into two groups, one group being derivational in character and the other not. Suffixes of class 1 are not derivational whereas suffixes of classes 2 and 3 are derivational.

Symbols and Examples: VsSx - verb stem forming suffix

| nanapu ${ }^{\text {Pi }}$ i | $\begin{aligned} & \text { nana- } \\ & \text { NR } \end{aligned}$ | $\stackrel{-\mathrm{pu}}{\stackrel{\mathrm{p}}{\mathrm{~V}}}$ | $\frac{-\mathrm{zi}}{\operatorname{ViS} x}$ | 'he is like him' |
| :---: | :---: | :---: | :---: | :---: |
| tanluwatusik | $\underset{\operatorname{NR} J}{\text { tenluwa-- }}$ | $-\frac{\operatorname{tun}}{V s S x 3 b}$ | $\frac{-_{\operatorname{sidk}}^{\operatorname{ViSx}}}{}$ | 'when it is windy' |
| menmiwanak | $\underset{\substack{\operatorname{NR}}}{\substack{\text { mexmi- }}}$ | $\begin{gathered} \text {-wan- } \\ \mathrm{Vssixjab} \end{gathered}$ |  | 'I have a chacra. |

731. Definition of the verb extensor

Any verb, in addition to comprising the obligatory elements of stem and one member of the inflectional suffix sexies, may also comprise one or more suffix of the series called 'extensors? 1

Any suffix which occurs as an element of any verb and
a) never occurs in final position in the verib, and
b) always is found immediately following the verb stem and inmediately preceding the member of the verb infleotional suffix series
is a verb extensor. These suffixes could also be defined by exhaustive listing.

This group of suffixes must be distinguished from the group of suffixes called verb infleotional suffixes; $\$ 74$. The chief differences are that whereas
a) one member of the inflectional series is found in every verb, many verbs do not comprise any member of the extensor series,
b) only one member of the inflectional series is found as part of any verb, more then one extensor is often found,
c) any member of the inflectionel series may be final in the word, no extensor is ever found final in the word.

732 Classes of extensor
Certain extensors my oocur with some other extensors but not with others. This Iimitation in the distribution of the extensors is the basis for their grouping into classes. Furthermore the different extensors, when found with a second extensor, oocur in a certain fixed ordex relative to each other, so that it is convenient to number the classes of extensor according to this relative sequence of distribution.

1 This term is used since the function of these suffixes is to extend the stem. It is not particularly helpful to label this group of suffixes as either derivational or inflectional, since the group does not fit into any of the usual distinctions between derivation and inflection. On the one hand these suffixes are derivational in that verbs comprising extensors have the same syntactic valence as verbs similar in every respect but wi thout extensors, for these more oomplex forms including one or more extensors function in the sentence very much as simpler forms without extensors. However, even this is not completely clear cut as the extensor of order 18, -dek, has syntactic implications since the object of verbs comprising this extensor is never first or second person or third person singular. None the less, in general, the application of this criterion suggests derivational status for these suffixes. On the other hand these suffixes have some characteristics which suggest inflection. One of the criteria for inflectional as against derivational elements is thet inflectional elements tend ta occur with a larger number of foms then do derivational. This group of suffixes ocours with a very large number of stems - in fact all stems except for collocational limitations. In this respect their distribution is as extensive as that of the inflectional suffixes troated in 874 , whose status as inflectional is not in any doubt. These different oriteria seem to conflict in this way and instead, therefore, of labelling these suffixes as derivational or inflectional the term extensor has been applied to them.

The different classes of extensor are termed 'orders', see section 672 for the definition and use of this term. The numbers given the orders of extensors in the next section indicate their usual sequence in relation to each other. In some instances the sequence is not fixed and in such eases the mumbering reflects the most usual sequence while a statement is made to cover other possible sequences in the paragraphs dealing with the particular orders affected.

Any extensor may occur with any verb stem unless there are collocational limitations. Members of any order may occur with a member of another or of several other orders except where stated below in the next section. In principle, a verb may comprise any possible combination of the orders, subject to the limitations in the distribution of some oxders with certain other orders. Since there are 19 orders of extensor, theoretically, verb forms may contain a large number of extensors, however, in the material examined, whereas verb forms containing one or two extensors are very common, forms with three or four extensors are infrequent and forms with five or more extensors are very rare. Longer forms with a larger number of extensors were elicited from the informant who accepted them and repeated them as good Jebero. But such longer forms were never heard unelicited or found in text material and it is probable that though they violated no structural principle and were thus acceptable to the informant they are not in fact in current use by Jebero speakers. Up to 7 extensors were accepted in this way in a form like oncunlapitapakuffuntai9mpu?doki, which has the meaning the is not again going and outting them leaving someone behind. It was noticeable that older speakers tended to use extensons more then younger speakers and the influence of Spanish, the 'prestige' language of the area, may account for this.

Except where otherwise stated the extensors are found with any member of the infleotional suffixes and any member of the word suffixes.


Symboligation: VE followed by the number of the order symbolizes these suffixes, e.g. pa?wiłituzi 'he went by night' par- -witi- -tu- -łi
VS VIEI VES ViSK

733 The 19 orders of extensor

The 19 onders of extensor are listed belowt and the following details concerning each order are given:
a) its membership
b) any relevant comment with regerd to its distribution with verb stems,
c) any relevant details regexding its distribution with other orders and in particular,
(i) any other order which is always found with the particular order being treated, i.e. any other order which the occurrence of the particular order presupposes but not necessarily vice versa,
(ii) any other order which never occurs with the particuler order, ie. which the occurrence of the particular order excludes,
(iii) any variation from the sequence of distribution with other orders which the number of the order indicates,
d) any relevant details regarding its distribution with members of the inflectional suffix series,
e) some examples. In these examples the partioular extensor being illustrated is underlined.
Order 1
Order 1 comprises one member, -wiłi- 'by night'
There are extensive collocational limitations to the distribution of this extensor with verb stems.
In every verb form where this extensor occurs, an extensor is newer found with orders 3,4 and 13a. Examples: he helped plant again
Order 4 .
Order 4 comprises two members,
-wa- 'motion towerds'
-i- 'do someching for another person'
Order 4 is always found with order 5.
Order 4 is never found with orders 1 and 2.
Order 4 may precede or follow order 15. Onder 4 may precede or follow order 15 .
Exarmples:
pipak- -wa- -tu- -lek
His
$\qquad$

Order 2 is never found with order 4.
Order 2 may precede or follow order 15.
the bathed, having lef'tsomeone. "VS Van - lepi- Ii

Examples:

$$
\square
$$

Order 5
This order is one of the most fisequently occuring orders, being found with numerous stems, with many other extensors and every Order 5 may precede or follow order 15 Examples: kanentocek seka?tupacin

$$
\text { Order } 7
$$

Order 7 comprises one member,
This order is one of the most frequently occuming orders, being found with numerous stems, with many other extensors and every inflectional suffix. .
Order 7 may precede or follow orders 15 and 196 . Examples: totka?palok ? watapilay 'going towards:




$$
\begin{aligned}
& \text { Order } 16 \\
& \text { Inis } \\
& \text {-де- 'poor person'. } \\
& \text { This order is found very inirequently in the material examined. } \\
& \text { Order } 16 \text { may precede and follow order } 19 \mathrm{~b} \text {. } \\
& \text { Examples: }
\end{aligned}
$$


'we were almost lost'

$$
\rightarrow \underset{i}{9} \frac{1}{a}
$$

促

$$
8 T-L
$$

$$
\underset{A}{A}
$$

$$
\begin{array}{ll}
i=\frac{1}{8} \\
\frac{8}{1}
\end{array}
$$

Ni

$$
\begin{aligned}
& \stackrel{m}{\mathrm{~m}} \\
& \overrightarrow{\mathrm{n}}
\end{aligned}
$$

Nin in

$$
\text { m } \quad \text { in in 육 }
$$

An 合

$$
\sim \stackrel{\stackrel{1}{\omega_{i}}}{\stackrel{1}{i}}
$$

管管

$$
\circ \stackrel{!}{\stackrel{!}{i}}
$$

in$\stackrel{n}{H}$

$$
+\frac{1}{e}
$$

$$
\begin{array}{ll}
\text { n } & \begin{array}{c}
N \\
i-1
\end{array}
\end{array}
$$

$$
\stackrel{\mathrm{H}}{\mathrm{H}}
$$

$$
\stackrel{n}{n}
$$


筑

$$
\pm
$$

$$
\stackrel{n}{n}
$$



## 74 Dofinition of the inflectional suffix

Every verb, in addition to comprising a stem, comprises one member of the verb inflectional suffix series, and onily one member. These suffixes thus make up one large mutually exclusive class of şuffixes.

Any suffix which occurs as an element of a verb and
a) is found final in the verb or followed only by one or more suffixes of the word suffix class, and,
b) is found as the only element apart from the verb stem, is a verb inflectional surfix.

This group of suffixes can also be established by exhaustive listing.

Symbols: ViSx - Verb inflectional suffix

## 742 Classes of inflectional suffix

All inflcotionel suffixes fall into one of two classes, unipersonal suffixes and bipersonal suffixes. These two classes constitute two series of parallel suffixes, both of which will be described in turn. These two classes are labelled $A$ and $B$ respectively.

## 743 Glass A - unipersonal suffixes

## 7431 Definition of class A suffixes

Any inflectional suffix which has the potentiality of occurrence with order 18 of the verb extensors is a member of the class A series of suffixes.

## 7432 Class A paradigms

The different suffixes of class A form a series of paradigms. Each paradign has eight members, except paradigms 11 and 12 which comprise six and four members respectively.

Exponents of tense, person and number, whether realised cumulatively or sexially, may be abstracted from the class A unipersonal suffixes, except that there is no overt exponent of number with the singular forms. The grouping of class A suffixes into paradigms may be formally justified in that the members of each paradign share a comnon exponent of tense and at the same time are mutually exclusive as regards the exponents of the categories of person and nurnber. Each paradigm comprises eight mombers, each with concord with a different pronoun, exoept paradigns 11 and 12.

Another reason for setting up the unipersonal and bipersonal suffixes in paradigms is that in this way it is possible to meke statements covering the distribution of the suffixes in the different sentence-types and clauses. The members of each paradign function similarly in the various sentenoe-types and clauses. Thus in chapters four and live the distribution of the inflectional suffixes in the different sentence-types and clauses has been stated by referring to the paradigms. It is found that the paradigms fell into two main groups which can be labelled subordinative and non-subordinative. The subordinative group consists of paradigms 8 - 10 which are never found as verbal head of the verbal piece of a favouxite sentence. The non-subordinative group consists of paradigms 1-7, 11 and 12 which are found as verbal head of the verbal piece of a favourite sentence.
Nembers of some paradigms occurrmich more frequently than members of other paradigms. In order of frequencey members of paradign 1 are found most comonly, then 10 and 2 , followed by 8,11 and 12 , then moch less conmonly 6 , 7 and 9 , while 3 , 4 and 5 are only found very
infrequently.

Paradigm 5-'obligative:
$\underset{n}{\text { first }} \underset{n}{\text { person exclusive }} \underset{n}{ }$ ingulusive $_{n}$ second " second
third
exclusive plural inclusive " plural Examples: tupipi9nak tupi- -pionak wa?ten- -pi'nakna wa?tenpi"nalka wa?ton- -pinakna -tupi- -a9ka
Texnnta 'You should have waitea.'
'You should have waitee. VS Visks
Paradigm 6 - 'conditional'
-nanseku first person exclusive singular -nansu" " $"$ inclusive second " singular third -nansokuǎek first -nansu? Tra? second
plural

$$
\begin{gathered}
\text {-nansəku } \\
\text { ViSx6 } \\
- \text { nansu9wa? } \\
\text { ViSx6 }
\end{gathered}
$$

$$
\text { Paradigm } 17 \text { - 'imperative' }
$$

$$
\text { Paradigm } 12 \text { - 'negative imperative' }
$$

$$
\begin{array}{cc}
\text { TESTA } \\
\text { Eq- } & \text { SA } \\
\text {-eutuep }
\end{array}
$$

$$
\begin{aligned}
& \text {-ta } \\
& \text {-traci }
\end{aligned}
$$

$$
\begin{aligned}
& \text {-tana? } \\
& \text {-pacina? }
\end{aligned}
$$

Examples:

$$
\begin{aligned}
& \text { sonata } \\
& \text { 'don't fight. ' }
\end{aligned}
$$

pilempacina?

$$
\begin{array}{lc} 
& \\
\text { second } & \text { person } \\
\text { thingular } \\
\text { third } & \text { " } \\
\text { second } & \text { " } \\
\text { third } & \text { plural } \\
&
\end{array}
$$

don't let them advise'

$$
\frac{\text { pile- }}{\text { VS }} \frac{\text { racine? }}{\text { ViSxl2 }}
$$

$$
\begin{aligned}
& \text { Examples: }
\end{aligned}
$$

## 7433 Exponents of tense, person and number

Exponents of tense, person and number may be abstracted from all the class A inflectional suffixes except that there is no overt exponent of number in the singular forms of the paradigms. These exponents are realiged sometimes serially and sometimes cumulatively. Frum thermore these exponents are not to be regarded as exhausting the particuler suffix from which they are abstracted as if the sum of the exponents was equivalent to the surfix. Thus, for example, from the suffix -i i of paradigm 1, an exponent of tense, 1 , and an exponent of person, i, is abstrected, but the feature of $y-p r o s o d y$ with its phonetic exponent of palatalization is not allocated to any exponent. This feature is stated for the suffix miti as a whole. Neither l nor i is regarded as a sylleble, but merely as a convenient symbol for phonetic features which are similar to the phone tic features symbolized by the transcription. It should be emphasized that these exponents are not morphemes. Fach inflectional suffix is regarded as one morpheme not as several as would be the case if these exponents of tense, person and number were each regarded as moxphemes.

## 74331 Exponents of tense

The exponents of tense may be set out for each paradigm in turn as follows:

Paradigm
$1 \quad 1 \sim n, 1$ alternates phonologically with $n$, the latter being found as exponent only when the preceding syllable has a final nesal phonematic unit or prosodic feature and the former being found elsewhere.
2. $\quad$. $\infty$ at, $\infty$ alternates morphologically with at, the latter being found only with the first person inclusive form.

3 a" In third person plural forms the open vowel of each 4 ina? of these exponents is not found but a central vowel. 5 pinnak is found.

6 nens co s nanta's being found with the third person plural © manta's, form, s being found with the third person singular form and nans being found elsewhere.

7 at
8 a's $\infty$ s, s being found as exponent only with the third person singular form.
$9 \quad s \infty$ a?s, a?s being found only with the third person plurat form.

10 a
11 and 12 It is not possible to state separate exponents of tense for paradigms 11 and 12 since these exponents are cumulative with the exponents of person and number.

The category of person has four members Each of the paradigms already given has included 8 mombers, $i_{n} e_{0}$ a singular and plural form for each of the four persons. However, it is possible to abstract from the verb infleotional suffixes separate exponents of the categories person and number and when this is done it is found that the exponents of the four persons when the category of number is plurel and when the oategory of number is singular while not identical show very many parallels, so that it is necessary to set up only four categories of person not eight. All the exponents of person ares therefore, stated for singular forms and only the variations with the plural forms are given and it may be assumed that the category of person is realized with the same exponent with both singular and plural forms unless the contreary is stated.

The four persons are first exclusive, first inclusive, second and third. The first person inclusive is inclusive of the person speaking and the person addressed, and is, thus, notionally a dual form translated in English by 'we', whereas the P'irst person exclusive is exclusive of the person addressed.

The exponents of person may be stated as:

## First exclusive:

## Paradigms

1-4, 6-9 velar closure, preceded by central vowel in paradigms 1,2,6-9, followed by open vovel in paradigms 3 and 4 , followed by back vowel in paradigns 6-9.
5 no overt exponent
10 bilabial nasal followed by back vowel
I-2 with plural forms, front vowel
3-5 " " " veler closure followed by back vowel
First inclusive:
Paradigms
1,3,4,7-10 velar closure, preceded by central vowel in 1 and 7


2 central vowel and alveolar flap
5 no overt exponent
6 back vowel and glottal stop
11., 12 cumulative with number and tense

## Second:

Paradigns
3-10 nesal closure, bilabial and followed by open vowel in 3-5 velar and preceded by front vowel in 6-9 velar in 10

1 open vowel
2 back vowel.
11, 12 oumilative with number and tense

```
Third:
```

Paradigms
1,7 and 8 front vowel, followed by velar closure in 8
2,6 and 9 back vowel, followed by nasal closure in 2
" " glottal " " 6 and 9
3. 4 open vowel
5 no overt exponent
10 velar nasal closure
11 and 12 cumulative with number and tense
3-6,8,9 with plural forms; when cumulative with number
central. vowel, alveolar flap and glottal elosure,
followed by velar olosure and open vowel in 3 and 4
" " " " " central " and velar
closure in 5.

## 74333 Exponents of number

The oategory of number has two members, singular and plural.

There is no overt exponent of the category of singular throughout the verb infleotional series.

The exponent of plural may be stated as,

$$
\text { wa? © dolk } \omega \text { ma? } \infty \text { na? }
$$

dok occurs when the category of person is first person exclusive,

| war | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $m a r$ | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ | second | $" 1$ |

except for paradigm 11 when exponents of tense, person and number are cumulative, and
na? occurs when the category of person is third person, except in paradigms 3,4.5, 8 and 9 , when the exponents of person and number are cumulative.

It should be noted that the category of singular in Jebero is not a notional a ategory, but a formal one. It does, in fact, include one member, the first person inclusive, which would not be accepted notionelly as singular, since the first person inclusive has reference to fwo persons, the person speaking and the person addressed.

## 74334 Chart of exponents

For convenience the various exponents of the oategories of tense, person and number abstracted from the inflectional suffixes may be set out in tabular form. It should be stressed that this style of presentam tion does not imply that these exponents may be added together to equal the particular suffixes from which they are abstracted. The symbols of the transoription are used whenever possible and have the same phonetic values as already desoribed. in chapter two.
Paradigm 1 tense person number Paradigm 2 tense person number

| -lok or minek | 1 or $n$ | ok |  | -ecelk | өc | ok |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -lek or -nok | 1 or $n$ | el: |  | -ater | at | $\partial{ }^{\prime}$ |  |
| -1a or -na | 1 orn $n$ | a |  | -ecu | eo | u |  |
| - 고i or -fii | 1 or $n$ | i |  | -ecun | 90 | un |  |
|  | 1 or $n$ | i | 万ok | -ecidok | อ0 | i | ðek |
| - Iekwa? or -nekwa? | 1 orn $n$ | elk | we? | -aterwa? | at | өr | wa? |
| -lama? or mama? | 1 or n | a | na? | -ocuma? | ə๐ | u | ma ${ }^{\text {a }}$ |
| Hina? or -nino? | 1 or | i | ne? | -ecuna? | ө๐ | un | ne |

Paradigm 3

| -.a? k a | a. | 1 ka |  |
| :---: | :---: | :---: | :---: |
| ma? ${ }^{\text {a }}$ | $\mathrm{a}^{2}$ | ka |  |
| -a'ma | $\mathrm{A}^{\text {? }}$ | ma |  |
| $-a^{2} \mathrm{a}$ | a? | a |  |
|  | $a^{\text {a }}$ | ku | dok |
| -a? kawa? | $a^{\text {a }}$ | ka | wa? |
| -a'mama? | $a^{\text {a }}$ | ma | ma? |
| -rika | ${ }^{2}$ | cumu | tive |


| -ine? ka | ina? | ka |
| :---: | :---: | :---: |
| -inariza | ina? | ka |
| -ina?ma | ina? | ma |
| -ina?a | ina? | a |
| -ina. ${ }^{\text {a kuơok }}$ | ina? | ku. ðеk |
| -ina?kawa? | ina" | ka ma? |
| -ina?mana? | ina? | ma ma? |
| -inedika | ine? | cumlative әrika |

Paradigm 5

| -pi?nalk | pipnalk |  |
| :---: | :---: | :---: |
| -pi?nalk | piPnalk |  |
| -pi nalma | pi'nak | ma |
| -piPnak | pinnalk |  |
| -pirnathudek | pirnelk | ku |
| -piPnalwa? | pirnall |  |
| -pi'nalkmana? | pienalt | ma |
| -pi'nerkek | pi'nelk |  |



Paradigm 7

| -atoku | at | oku |  |
| :--- | :--- | :--- | :--- |
| -atek | at | ok |  |
| -acin | ac | $i \eta$ |  |
| -aci | ac | $i$ |  |
| -atekuðok | at | olu | ðok |
| -atelkwa? | at | ek | wa? |
| -acinma? | ac | $i \eta$ | ma? |
| -acina? | ac | $i$ | na? |

Paradigm 9
-seku
-sik
-siy
-su?
-sekuǒek
-sikwa?
-sigma?
-a?sor?

| s | eku, |
| :---: | :---: |
| s | ik |
| s | ing |
| s | $u^{\text {a }}$ |
| s | elu dok |
| s | ik wa? |
| s | in ma? |
| $a^{\prime}$ s | oumulative ert |

Paradigm 10

| - | a | mu |  |
| :---: | :---: | :---: | :---: |
| -alc | a | k |  |
| -an | a | n |  |
| - 213 | a | D |  |
| -ammdok | a | mud | ðok |
| -akwa? | a | k | Wa? |
| -arma? | a | H | ma? |
| -argas? | a | 13 | na? |

Paradigm 11

```
-a
-kə\mp@code{N}
-i
-awa"
mku?
-ina?
```

cumulative
ounulativo
cumulativo cumulative wa?
cumulative curmalative na?

Paradigm 12

| -ta | cumulative |
| :--- | :--- |
| -paci | oumulative |
| -tama? | cumalative ma? |
| -pacina? | cumulative na? |

The symbol for the verb inflectional series, ViSx, is extended to symbolize the categories of tense and of person and number as follows:
a) a number indicates the tense,
b) a letter indicates the person and number combined.

The paradigm numbers are used to refer to the tense,
The eight categories of person and number combined are referred to by the use of a letter as follows:

```
a any finst person exclusive singular form
b any first pexson inclusive singular form
c any second person singular form
d any third person singular form
e any first person exclusive plural form
f any first person inclusive plural form
g any second person plural form
h any third person plural form
```

| Examples: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| nalcuzi | naku- | - 2 i | tupiteook <br> 'I will follow | tupi- | $-t-$ | $\begin{aligned} & \text {-ecok } \\ & \text { Visx2a } \end{aligned}$ |
| 'he passed' | VS | ViSxld |  |  |  |  |
|  | ka?- | -ker |  |  |  |  |
| 'Eat!' | VS | Visxullo |  |  |  |  |

74 Class B - bipersonal suffixes

Class B inflectional suffixes are suffixes omprising exponents of five categories, either cumalatively or serially in the following sequence, tense, person and number (subject), person and number (object), except that there is no overt exponent of number in singular forms.

Whenever in sentences which contain a bipersonal verb there is a nominal functioning as subjeot, 84424 , as is the case for all sentences of class SIIT, there is agreement of person and number between that nominal and the exponents of the first person and number of the bipersonal suffix. Similarly, whenever in sentences which contain a bipersonal verb there is a nominal functioning as object, 自 555, which is only rarely the case, there is agreement of person and number between that nominal and the exponents of the second person and number of the bipersonal suffix.

## 7441 Definition of class B suffixes

Any inflectional suffix which never occurs with order 18 of the verb extensons is a member of the class $B$ series of suffixes.

74/4 Class B paradigms

Class $B$ suffixes are arranged in a number of paradigms in the same way as class $A$ suffixes, Each paradigm has in common an exponent of tense, while the exponents of person and number are mutually exclusive within each paradigm. The exponents of tense in class B paradigms are parallel to the exponents of tense in class A paradigms and the numbering of class B paradigms reflects this similarity of form. Thus the exponent of tense in class $B$ paradigm 2 is parallel to the exponent of tense in class A paradigm 2.

Though there are some similarities, the categories of person required for the statement of the olass $B$ paradigms are not identical with the categories of person required for the class A paradigms. Whereas the
class A paradigms require a system of four persons, the class B paradigms require two systems of person, each with three members. One systern is set up for the category of person (subject) and the other for the categary of person (object). The fomer comprises the following three members, first person (exclusive), second person and third person. The latter comprises the following three members, first person exclusive, tirst person inclusive and second person. These two systems have points of similarity with the sour term system or the class A paradigms with first person exclusive, first person inclusive, second person and third person, but the three systems are clearily not identical. For the purpose of comparison it is convenient to lavel the persons of the class B paradigms in a sinilar maner to the persons of the class A paradigms, a. fin'st pexson exclusive singular, b filst pereon inclusive singular, eto.,

Since all olass $B$ forms comprise two persons, two letters are used, the first meterring to the subject person and the second to the object.

Only certain combinations or persons are found and these may be set ou'c in chert form as f'ollows:

OBJ』CT


The combinations marked on the chart are the only combinations that occur. Sone combinations are naturally inpossible for situational reasons, For instance, it is scarcely possible to conceive of a situation in which the first person inclusive forms could be subjeot and the first exchusive and second persons could be object, or vice versa, e, g. 'fife (inclusive) saw me' or, 'you saw us (inclusive)'. There are similar situational limitations with the first exclusive. Even where there are gaps in the series of forms for combinations which are situationally possible this does not mean that there are gaps in the language as if there were no equally convenient wes of saying, for example, 'I hit myself' or 'he saw them'. These formal gaps are covered by a number of other structures as follows:
a) Reciprocal-reflexive form of the verb. This is the form containing the prefix in- 'reciprocal-refexive', 自 753. This covers all combin$\mathrm{aa}, \mathrm{bb}, \mathrm{co}, \mathrm{e} t \mathrm{c} ., 0 . \mathrm{g}$ insekitulek 'I hid myself'.
b) The extensor - סok- 'them'. This covers all combinations involving $h$ as second person (object) e.g. ah, bh, etc., e.g. sekituðeklek 'I hid : them ${ }^{1}$.
c) The third person singular, $d$, as second porson may be considered as zero. All unipersonal forms may be considered to have a third pors on singular object unless otherwise indonted gromma tionily by an (objedt) nominal of a different person and number, or unless situationally inapplicable.

It will be seen that these three structures account for all the gaps which are not situationally impossible.

Fhurthermore it should be noted that all bipersonal verbs may be substituted by a unipersonal verb and separate object nominal with parallel persons and numbers.
8 エ
immana -inga? -uTkuồ2k -inertkuor̀ek -inerkenmo $\frac{\text { wa? }}{\text {-in }}$
-pacinerkayma" ${ }^{\text {-pa? }}$ ?

 Paradigm II


『ertord-צepnyxeutoed-Gexuruțoed-
${ }^{\omega}$
 -aminexken or or -aminerk эnma? Paradigm 11
$\begin{array}{ll}\text { c } & -u \\ \text { d } & \text {-ink }\end{array}$ -igmu? g -upku h -inku?ku Paradigm 12

$$
\begin{aligned}
& \text { a -pacinku } \\
& \text {-pacinma? }
\end{aligned}
$$

$$
\begin{aligned}
& g \text {-tamaru or } \\
& -\tan \pi{ }^{2} k u
\end{aligned}
$$

-tundek

$$
\begin{aligned}
& \text {-paciŗkuð̀ek } \\
& \text {-tamapuð̌ek }
\end{aligned}
$$

$$
\begin{aligned}
& \text { cinerku -pacinerken-pacinerkuǒek } \\
& \text {-pacinerkeyma? }
\end{aligned}
$$ -anerkrymana? -uð̀k

-inkuðेek
-pacinma? ${ }^{\text {-pa? }}$ ?


,
Fhen the verb extensor 7 immediately precedes suffixes of
Paradigni 7 , this paradigm is as follows:
$f$
-acinkuà ek or
-acikipla
a as above
c -acinku
$c$
$-a t o k u n g$
d -acunku -acin
-aciồon
e -acintas

- eufnize? -
${ }^{\omega}$

 -acinmauొkuðək
h -acinerku -acinerken -acinetkuð̌k -acinoskenma? -acinertkergmis
-p
$7443 . .:$ Erponents of tense, person and number

Hxponents or tense person and number (subject and object) are abstracted from the class B inflectional suffixes in the same way as from class A suffixes, 57433 . These emponents of the five categories concorned in the class $B$ suffixes are not to bo regarded as additive in any sense.

## 74431 Exponents of tonse

A companison of cless A and class B paradigms shows that the exponents of tense in the paradigms of class $B$ are similar to the exponents of tense in class A paradigms. It is, therefore, not necessary to restate these exponents. However, tho paradigms 11 and 12 do not show such oomplete correspondonco and these are, therefore, stated separately. Paredigms 17 and 12 oxhibit cumulative exponents for the categories of tonse and person (subject) and these cumlative exponents are set out in the tables of section 74.36. Tonso is symbolized in class B paradigms in a similar memner to olass $A$, namely by means of a ruraber which is the paradigm numbor.

## 74432 Ixpponents of person (subject)

The exponents of person (subject) show considerable correspondence to the exponents of person in the class A paradigms, and the statement of the exponents of person (subjeot) is, therefore, most casily made with reference to the statement of exponents of person alroady made in section 74332.

## Eirst (exclusive)

Paradigms


## 74433 Txponents of number (subject)

The exponents of number (subject) show considerable correspondences withthe exponents of number in the class A paradigms in section 7433 . There is no overt exponent of number in the singular form. The exponent of the plural category of number is as stated in section 74.333, except that, where the exponent nasal. closure, open vowel and glottal closure is found in paradigm A suffixes, the exponent nasal closure, central vowel, glottal closure and alveolar flap is found in paradigm $B$ suffixeso

## 74434 Exponents of person (object)

The three aategories of person (object) required for the statement of class $B$ paradigms have the following exponents except when these exponents are cumalative with the exponents of other oategories.
First person exclusive:
velar closure followed by back vowel, except for exponent in the suffixes -łu, -mu, -u and -tu, in paradigms 1, 3, 11 and 12 when the back vowel is exponent.

First person inclusive:
velar nasal olosure followed by bilabial nasal, back vowel, and glottal closure and which is preceded by contral vowel in paradigms 1, 2, 5, 7, 12 and in the third person plural (subject) forms of paradigms 3,4,6,8-11

## Second person:

velar nasal closure proceded by central vowel in paxadigms 1,2,5,7,12 and in the third person plural (subject) forms of paradigms 3,4,6, 9-11.

## 74435 Exponents of number (object)

The exponents of number (object) in the class B paradigms are simi-lar to tho exponents of number in the class A paradigms, 17433.

### 744.36 Chart of exponents

For convonience the various exponents of the categories of tense, person and number (subject and object) abstracted from the inflectional suffixes may be set out in tabular form. This style of presentation is not meant to imply that the lincar scquence of exponents may bo added together as if the exponent of tense, plus the exponent of person (subject), plus the exponent of mumer (subject), plus the exponent of person (object), plus the exponent of number (object), equalled the partioular inflectional suifix. For example, from the suffix wed is abstracted the exponent of tense, $l$, of person (subject), ak, i.e. central vowel followed by velar olosure, and of person (object) on, $i$. $\mathrm{c}_{\text {. central vowel followed }}$ by velar nasel closure, thus the phonetic exponents of central vowel and velar closure are assigned as exponents of both person (subject) and perm son (object). On the othor hand from the suffix - inerken is abstracted the exponent of tense, 1, of person (subject), i, of number (subject), ner, and of person (objecti) er. Thus not all the phonic material is assigned to a particular exponent of a specific grammatical category. It should be stressed that these exponents are not morphemes.


| 4 <br> 0 <br> 0 <br> 0 <br> 吕 |  |  |  |  |  | 觡枵 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| g 0 0 0 4 0 0 |  |  | 呂 9 | EGE | 負管 | 容管 |
| 4 <br> 0 <br> 0 <br> 0 <br>  |  |  | 筑 $\stackrel{H}{i}$品药 － E |  |  |  |
| $\begin{gathered} \pm \\ 0 \\ 0 \\ \underset{\sim}{0} \end{gathered}$ |  |  |  |  |  |  |
|  |  |  | 0 |  |  |  |






|  |  |  |  |  |  | ¢ ${ }_{\text {¢ }}^{\text {¢ }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 管餒 | 宾貣 |
|  | 介，曾䍖 | 蕆管 |  |  | ，茹 | 帯 |
|  | GqGq |  | 自慁罦男 |  | 目慁 | 算 ${ }^{\text {d }}$ |
|  | ๘๐๙๙ | ๗๘ ๘ | ๙๘๙ ๘ | あむむむ | ๘ ๗ | $\cdots$ |
| ， |  |  |  |  |  |  |

Verb forms may comprise one or more verb expanding prefix. Verb forms having more then three prefixes are infrequent, though in principle up to five prefixes may occur. Forms with one or two prefixes are found frequently.

Any affix which precedes a verb stem is a verb expanaing prefix.

752 Classes of the verb expanding prefix

Prefixes are found with auy verb stem except olass Ib and any combination of verb extensors or with any inflectional suffix or word suffix, except where otherwise stated in section 753 and subject only to collocational limitations. Such collocational limitations are extensive.

Some prefixes are found more frequently and with a greater number of verb stems than others and this will be noted as each is treated.

Five classes of prefix are set up. The members of each class are mutually exclusive with each other in any one verb form. However members of different classes are found in the same verb form, subject to certain limitations which will be stated for each class or member in turn.

These five clesses are numbered, counting outwards from the stem. Except where otherwise stated this numbering indicates the only possible sequence of the prefixes when more than one prefix is found in any one verb form. These five classes are termed 'orders', $\$ 672$.

Symbolization:
VePx folloved by a number symbolizes the verb expanding prefix and the particular order of the prefix.

$$
\frac{-1 ə k}{\text { ViSxI }}
$$


ViSxl
Order I comprises one member,
im- inn ink- 'reciprocal-re-
im-before binabial stops, flexive'
in-. " velar stops,
ink- " dr,
in-elsewhere.
form is not found with any bipersonal
fixes, 8744 .
Forms comprising this prefix are very commonly found. When preceded by any member
of order 4, this prefix may be preceded by
either a member of order 2 or of order 3 but
Certain other corabinations of other pre-
fixes are found with this prefix, namely,
Order 2 with order $4 a$ with order 1
" 3 " " 4 " " " 1
These various possibilities are illustrated
in this table, (read fromin stem outward, i.e.
right to left).

$$
\begin{aligned}
& \stackrel{N}{B} \\
& H \\
& N \\
& N \\
& N \\
& 0 \\
& \sim
\end{aligned}
$$

$\stackrel{1}{a_{8}^{1}}$

VS

$$
\begin{aligned}
& \text {-apa-- } \\
& \text { VE7 }
\end{aligned}
$$

mu-
ñinci-
na-
intek-
Order 4
Order 4 comprises the foliowing six members,

n2- 'recentiy' per- 'be tirod of doing:
tak- 'do many times'
All these six prefixes are found much less frequently then the
nembers of orders $1-3$.
Four sub-clesses of this order are set up on the besis of the distribution of these prefixes with othor prefixes: $\begin{array}{ll}4 \mathrm{a} \\ 4 \mathrm{~b} & \pi\end{array}$ $\begin{array}{lll}4 \mathrm{c} & \text { n na } \\ 4 \mathrm{~d} & \text { intok-, pors tek-. }\end{array}$
intek- 'pretend to do, do something ineffectively' Sub-class 4 d is never found preceded by any other prerix. Sub-classes 40 and $4 b$ may be preceded by order 3. Sub-class $4 a$ may be proceded by order 2.
 VS VS
VS
VS


A summary showing the distribution of the verb expanding prefixes is presented in the following chart:


## 76 The pxedioative verb

The prodicative verb is limited both in symtactic function and morphologicel form.

Members of the predicative verb series occur in sentences of sentence-type IV only, \$3 4.52.

The predicative verb comprises the following forms only:
mukalka 'predioative lst exclusive singular'
nuka\%ka " Ist inclusive "
nuka ${ }^{m a}$ " 2nd singular
nuka? $a$
" 3 rd "
nuka ${ }^{\text {kudob }}$
nuka" ${ }^{\text {kawe }}$ ?
" Lst exclusive plural
nuka ${ }^{\text {mama? }}$
" Ist inclusive
"
nukərka
2nd plural
" $3 r$ "

These forms are analyzed into verb stem nuka'm and a sories of inflectional suffixes comperable to class A paradigms 3 and 4 s 7432 .

Symbol and examples:
Vp - predicetive verb
taserpi muknoka
fiwilukerme? we? muka?kewe? 'we are Jeboro people' subrinuwekken nuka? me

C21.
'I am an old man' C.T.
'you are my nephew' 10.11.7.

A verb fom may compriso prefixes, stem, extensors, and inflectional suffix and word suffixes. Every verb contains one stem and one member of the inflectional suffixes, which comprises 347 suffixes arranged in 2 sets of twelve paradigms, one unipersonal set and one bipersonal. In addition a verb may contain: up to three members of the verb expanding profixus which comprise a class of ten prefixes arranged in 5 orders, up to four members of the extensor cless of suffixes which consists of 29 suffixes arrenged in 19 orders and up to three members of the word suffix oless which comprises 17 members arranged in 8 oxders.

|  | Prefix | Stem | Extonsor | Inflectional Suffix | Word Suffix |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. of terms in system | $\begin{gathered} 10 \\ \text { in } 5 \\ \text { orders } \end{gathered}$ | unlimited | $\begin{aligned} & \text { in }^{29} 19 \\ & \text { orders } \end{aligned}$ | $\begin{gathered} 347 \\ \text { in } 2 \text { sets } \\ \text { of } 12 \\ \text { poradigms } \end{gathered}$ |  |
| No. of ellements in any one verb | up to 3 | 1 | up to 4 | 1 | up to 3 |

81 Elements within the nominal

82 The nominal stem
821 Definition of the nominol stem
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823 Class I stems
8231. Definition of Class I sterns

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825 Homophonous nominal and adverb roots
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8261. Definition of the nominal root

8262 Classes of nominal root
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8266 Class $A$ and $B$ nominal roots
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8268 Class $X, Y$ and $Z$ nominal roots
8269 Summary of root classes
827 Chart of nominol roots and stems
828 Nominal derivational suffixes
829 Correlation of the nominal stem and root olasses vith the sub-classes, noun, adjective, pronoun and relative

83 The non-verbal suffix
831 Definition of non-werbad suffin
832 Classes of non-verbal futfix
833 The 17 orders of non-varbein suffix
834 Chaxt of nom-vexbel stafixes

The Jebero nominal may comprise the following elements, stem, nonverbal suffix, and word suffix.

The great majority of nominal stons are found with or without suffixation, and thus the minimun form of the nominal may be said to be the nominal stem alone. However, a very small number of nominal stems never occur alone but are always found with suffixation. In view of the small number of such stems, it seoms best to regard the minimum form of the nominal to be the stem alone, and to consider these stems.as a smil class with more limited distribution than the vast manority of nominal stems. They are, therofore, set up as a sub-class of stens, see seotion 8232 , sub-cless Ib.

The theoretion maximun form for the nominal is never found, since in its expanded form in theory the nominal mey comprise, a stem itself comprising three roots, up to 11 non-verbal suffixes and up to 6 word suifixes. In foot no forms like this arefound. In the material examined a very great variety of combimtions of the different elements within the nominal is found, but nomind forms with more than six suffixes are very rare. From this it can be seen that the theoretioal maximum is never approached.

Subsequent sections of this chapter will deal with each of these elements in tum and state any limitations in the distribution of the various elements with each other. Section 82 will describe nominal stems, and scotion 83 non-verbal suffixes. Word suffixes are treated in section 67.

Symbols: NS - nominal stem nvSx non-verbal suffix NaSx nominal derivational sufeix

82 The nominal stem

821 Definition

The stem of a nominal is that element which either standing alone without affixation, or, (in the onse of a small number of stems which may be exhaustively listed) when suffixed by one momberof the non-verbal suffix class without further affixation, may function as a nominal. ( 5531 , 554 and 572 for the function of the nominal.

822 Classes of nominol stem
Nominal stems always comprise a nucleus element and may al. so comprise a satellite element.

There aro two types of nucleus and nominal stems are divided into two classes on the basis of the type of nucleus of which they are comprised.

Class I nominal stems are those whose nucleus is a nominal root. This class is desoribed in scetion 823.

Class II nominal stems are those whose nucleus is a verb stem. This closs is described in seotion 824.

The satellite elements of nominal stems will be described in conjunction with the different nuolei with which they are found and in section 828.

Nominal stans may comprise more than one root, and more than one type of root, and such instances are treated as complex nuclei.




Class I stems - nominal root nucleus nominal stems

8231
Definition of olass I stems

All nominal stems which comprise as their first element a nominal root are nominal root nucleus nominal stems, except when such a first place nominal root is an element of a verb stem, which is itself functioning as the muoleus of a nominal stem see section 8242 on class II stems, sub-class b.

Olass I stems are divided into a number of sub-classes according to their internal structure.

Sub-class a, single root stem, comprises a single nominal root without any other element. Any nominal root of root class I may be found in a Ia nominal stem. Class Ia sterns are the most frequently occurring type of nominal stem.

Sub-class b, single bound root stem, comprises a single nominal root without any other element. Sub-class b differs from sub-class a in that b stems never occur alone but are always surfixed, This class of stems is a very small one and has already been referrod to in sections 81 and 82. Any nominal root of root class II may be found in a Ib nominal stem. See section 8264.

Sub-class o, double root stem, comprises two nominal roots as com plex muclei without any other element. The first root of Ic stems is a member of root classes Ib, Ic, or Id. The second root of these stems i.s a member of root classes Ic, Id, ITa, IIb or III. Though not as common as class Ia stem, plenty of examples of class Ic have been found.

Sub-class d, treble root stem, comprises three nominal roots as complex nuclei without any other element. The first root of Id stems is a member of root classes Ib, Io, and Id. The second root is a member of root classes Ic, Id, TIa, IIb or III. The third root is a member of root classes Id. IIb or III. This class of stem is found. quite of ten though not as Irequently as classes Ia or Ic.

Symbols and Examples:


824 Class II stems - verb stem nuoleus nominal stems

## 824I Derinition of class II stems

All nominal stems which omprise a vorb stem followed by some other element are verb stem nucleus nominal stems.

## 8242 Sub-classes of class IT stems

Class II stems are divided into submelasses on the basis of the satallite eloments which follow the verb stom mucleus.

Sub-class a, verb stem and nominal root stem, comprises a verb stem followed by a nominal root.
Verb stems found in class IIa nominal stems are always from verb stem clessos $I a$, and $I d$. Not every stem of these classes may occur in ITa nominal stems, but only those stems whose nucleus is a verb root of class $X, \$ 7267$.

Any nominal root of root classes Io, Id, IIa, ITb or III, may be found as satellite clement in class IIa nominal stems.

Sub-class b, verb stem and derivational suffix stem, comprises a verb stem followed by a inember of the nominal derivational suffix class, 5828 . Any such form may also contain a verb expanding profix immediately preceding the verb stem element of the nominal.

Any varb stem of any vorb stem class may be found as nucleus of class ITb nominol stoms. Any member of the nominal derivational suffix class may occur with any verb stem as the satollite ehement of cless Ilb nominal stems, subject only to collocational limitations.

Symbols and Examples:
NSIIT - nominal stem of class IIa

| $\begin{gathered} \text { uPlandzati } \\ \text { NSIIa } \end{gathered}$ | $\begin{gathered} \text { u'lainm } \\ \text { VS } \end{gathered}$ | wol: i <br> NR | 'wintor ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { pipelu? } \\ & \text { NSIIa } \end{aligned}$ | $\begin{gathered} \text { pipor- } \\ \text { Vs } \end{gathered}$ | $\begin{aligned} & -\frac{7 u^{\circ}}{} \\ & \mathrm{NR} \end{aligned}$ | 'rod earth' |
| $\begin{aligned} & \text { kalu?pi } \\ & \text { NSIIb } \end{aligned}$ | $\underset{\text { VS }}{\mathrm{kalu}^{2}-}$ | $-\mathrm{p} i$ MdSx | 'some thing cooked' |
| pentuma NSITB | $\begin{aligned} & \text { pertur } \\ & \text { VS } \end{aligned}$ | $\begin{aligned} & \text {-na } \\ & \text { NaSx } \end{aligned}$ | 'bridge' |

A small number of nominal stens comprise an element which may be regarded as eithor a nominel root or an adverb root. The present analysis treats these forms as nominal roots which may be paralleled by an identical homophonous adverb root. However, it would also be possible to treat them as adverb roots and to set up a third olass of nominal stems, comprising adverb root nucleus with or without satellite elements. The chief disadvantege of this treatment is that it involves setting up a large number of sub-classes of adverb root and making a number of structural statements for a very limited group of stems. For example, napi. 'old, long ago', functions syntaotically as a nominal (adjective) and as an adverb, and in morphological form shows chanacteristics of both classes.

$$
\begin{array}{ll}
\text { napi }{ }^{2} \text { papli } & \text { 'he went a long time ago' } \\
\text { napi'lau'lusa? } & \text { 'the old men now dead.' }
\end{array}
$$

826 The nominel root

8261 Definition of the nominal root
Any part of a nominal which oamot be further subdivided into further morphemes, and which either
a) may function alone as a nominel stem, or
b) together with a preceding nominal root (which may function alone as a nominal stem) may function as a nominal stem, and is not a member of the non-veribal or word classes of suffix, is a nominal root.

8262 Classes of nominel root
Four sets of classes of nominal root are set up. Rach set of classes is not a further sub-aivision of a previous division but each set is a crossmolassification at the saine level as the other three sets. One set of three clesses is established on the basis of the distribution of the roots within the nominal stem. This set is labelled I, II, and III, \$8263.45: Another set of two classes is sot up on the basis of the distribution of the roots in cless Ie verb stems. This set is labelled $A$ and $B, s 8266$. it third set of two classes is set up on the basis of the distribution of tho roots in class ITb verb stems. This set is labelled J and K, 8 8267. The fourth set of three classes is established on the basis of tho distribution of the roots with the adverb derivational suffimes, g 925. This set is labelled X, Y, Z, f 8268.

There is complete ovorlapping of these four sets of root classes, \$ 8269 for a diagrom illustrating this.

The three classes of root set up on the besis of the distribution of the roots within the nominal stem are:

```
dlass I, free roots,
class II, bound roots,
class III, complex nucleus roots.
These are doalt with in turn in the following sections.
```

8263 Class I nominal roots - froe roots
All roots which may be founa as nominal stoms which may function as words without ary other elements, are class I nominal roots. The great majority of nominal roots are of this class.

Class I roots are divided into four sub-classes.
Sub-class a, single free roots, always occur alone in nominal stems. Roots of this olass are found in stems of olass Ia only.
Sub-class b, first place free roots, may occur either alone or as first root in nominel sterns. Roots of this class are found in stems of classes Ia, Ic, and Id.

Sub-class c, second place free roots, may ocour either alone, or as first root, or as second root in nominal stems. Roots of this cless are found in stems of olasses Ia, Ic, Id, and IIa. Sub-class d, third place free roots, may occur either alone, or as first root, or as second root, or as third root in nominel stems. Roots of this class are found in stoms of classes Ia, Ic, Id, and IIa.

| Bymbols and Examples: |  | NRTa <br> NRTb <br> $\mathbb{R}$ Io <br> NRTA | --- | nomina$"$$"$$"$ | $\begin{gathered} \text { root } \\ " \\ " \\ " \end{gathered}$ | of | olass $I a$ <br> $" 1$ $I b$ <br> $" 1$ $I c$ <br> $"$ $I d$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| pidel NRTb | 'house' |  |  |  | tampa? NRIo |  | 'axm, branch' |  |
| kala | 'three' |  |  |  | lada NRId |  | 'face ${ }^{\text {P }}$ |  |
| NRIa |  |  |  |  |  |  |  |  |  |

8264 Cless II nominal roots - bound roots
iill roots which may be found as nominal stoms which may function as words only with some suffixiol element, are class II nominal roots.

Class II roots are divided into two sub-classes.
Sub-class a, second place bound roots, always occur either alone or as second root in nominal stems. Roots of this class are found in stems of classes Ib , Ic, Id and IIa.

Sub-class b, third place bound roots, al ways occur either alone, or as second root, or as third root in nominal stems. Roots of this cless are found in stems of classes In, Ic, Id, and ITa.
Class II roots are a small class but roots of this class occur frequently.

Symbols and Examples:
$\begin{array}{ccc}\text { NRIIa } \\ \text { NRIIb } & \text { nominal root of class } & \text { IIa } \\ \| & \| & \| \\ \text { IIb }\end{array}$
pi- 'body'
NRIIb
supina- 'behind, baok'
NRIIa

8265 Class III nominal roots - complex nucleus roots
ill nominal roots which never function as a simple nucleus in nominal stems are class III nominal roots.
$i 11$ class III roots always oocur either as second root or as third root in nominel stems. Roots of this class are found in stems of classes $I c, I d$, and $I I_{\text {. }}$

Class III roots are a small class, some 20 or so roots having been found, but these roots occur frequently.

Symbols and Examplos:
-Iu" 'flesh'
NRJIII
-pon
NRIII
'male'

NRIII - nominal root of class III
-luy 'female'
NRIII

8266
Class is and $B$ nominel roots

The two classes of root sat up on the basis of the distribution of the roots in class le verb stems are:

Class $A$, comprising all nominal roots which are found in class Ie verb stems, that is, following a verb root as described in section 7232.

Class $B$, comprising all nominal roots which never occur in class Ie verb stems.

There is considerable overlapping between classes I, II, and III, and classes $A$ and $B$. Class $A$ includes roots of olasses I, II and III. Class $B$ includes roots of class $I$ only. Or, stated conversely, class I includes roots of olasses $A$ and $B$, whereas classes II and. III include only roots of cless 2.

Class A roots are found in all classes of nominal stem, except class IIb, while class B roots are found in stems of elass I only.

Class $\Lambda$ roots are a comparatively small class of roots, of which some fifty have been found but this class includes a number of very common roots. The majority of these roots have a semantic similarity, being names of parts of the body.

Symbols and Examples:


8267
Class $J$ and $K$ nominal roots

The two classes of root set up on the basis of the distribution of the roots in class IIb vorb stems are:

Olass J, comprising all nominel roots which are found in class IIb verb stems, that is, suffixed by the verb derivational suffix -tum as described in section 7242.

Class $K$, comprising all nominal roots which never occur in class IIb verib stems.

There is considerable overlapping between classes I, II, ITI and classes $J$ and $K$, and between olasses $\Lambda$ and $B$ and classes $J$ and $\neq$

Class $J$ includes roots of classes $I$ and $I I$, while class K includes roots of classes I, II and III. Conversely, class I includes roots of classes $J$ and $K$, and class $I I$ inoludes roots of classes $J$ and K, while class III includes only roots of class $K$.

Class $J$ includes roots of classes $A$ and $B$ and so does class $K$. Conversely classes is and $B$ include roots of classes $J$ and $K$.

Class $J$ and $K$ roots are found in stems of all subwolasses of class I, the nominal root nucleus nominal stem, and sub-class IIa nominal stem.

The number of class $J$ roots is quite small. In the material examined some forty on so roots have been noted, though it seems likely this may be extended in further material.

Symbols and Examples:


8268
Class $X, Y$ and $Z$ nominal roots

The three classes of root set up on the basis of the distribution of the roots with the adverb derivationel suffixes are:

Glass $X$, comprising all nominal roots which are found in class Ita adverib stems, that is, suffixed by the adverb derivational suffix - Iu?, 見 9252.

Class $Y$, comprising all nominal roots which are found in olassIITb adverb stems, that is, suffixed by the advorb derivational suffix -pi², $\$ 9252$.

Class Z, comprising all nominal roots which nevor ocour in adverb stems.
There is considerable overlapping between classes I, II and III, and classes $X, Y$, $Z$, betroen classes $A$ and $B$ and classes $X, Y, Z$, and between classes $J$ and $K$ and classes $X, Y, Z$.

Classes $X$ and $Y$ include roots of class $I$ only, whereas class $Z$ includes roots of classes I, II, and III. Conversely class I includes roots of classes $X$ and $Y$, while clesses II and III include roots of class $Z$ only.

Classes $X$ and $Y$ include roots of class $B$ only, whereas class $Z$ includes roots of classes $\Lambda$ and. $B$. Conversely class $\Lambda$ includes roots of class $Z$ only whereas class $B$ inoludes roots of classes $A$ and $B$.

Class $X$ includes roots of class $J$ only, and class $Y$ includes roots of class $K$ only, whereas class $Z$ includes roots of classes $J$ and $K$. Convorsely class $J$ includes roots of classes $X$ and $Z$, while class $\mathbb{K}$ includes roots of classes $Y$ and $Z$.

Class $X$ roots are found only in nominals of the sub-class adjective. It would, therefore, be possible to set up a further sub-class of adjectives which could be defined as those whose roots are of class $X$ or as those which cen be suffixed by the adverb derivational suffix -Iu?, and to call this sub-class 'numerals'. However it should be noticed that such a sub-cless would include a few other words in addition to counting words, e.g. wapu' 'many'.

Symbols and Eramples:

| NRX - | nominal root of olass $X$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| NRY | $" 1$ | $" 1$ | $"$ | 11 | $X$ |
| NRZ | $"$ | $"$ | 11 | 11 | $Z$ |


| kalalu' | kala | -lu9 |
| :---: | :--- | :--- |
| NNX | idSx | 'three times' |


|  |  | A |  |  | B |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | X | Y | 2 | X | $\Psi$ | Z |
|  | $J$ |  |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| I | K |  |  | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |
|  | $J$ |  |  | $\checkmark$ |  |  |  |
| 1. | K |  |  | $\checkmark$ |  |  |  |
|  | $J$ |  |  |  |  |  |  |
| III_ | K |  |  | $\checkmark$ |  |  |  |

All the possible combinations of root classes are diagrammed in the chart above. Those squares ticked indicate the combinations that do actually occur.
From the chart it will be seen that all nominal roots in Jebero belong to one of nine groups of classes, namely, groups comprising classes,

| 工二NZ | IBJZ | IINJZ |
| :---: | :---: | :---: |
| IAKZ | TBIXX | ITAKZ |
| IRJK | IBKZ | IIIAKZ |

827 Chart of nominal roots and stems

This chart sumnarises the correlations between the different nominal stem and root classes. It does not, however, include the crossp classification of root classes dealt with in sections $8266-8269$.


Nominal derivational suffixes may be defined as those suffixes which are found following a verb stem, verb stem and suffix together forming a nominal stem.

These suffixes form a closed system of mutually exclusive members which may be listed exhaustively. Two sub-classes are set up on the basis of the presence of exponentsof person.
Sub-class 1 comprises suffixes from which no exponent of person may be abstracted, wilile
sub-class 2 comprises those suffixes from which exponents of person may be abstraoted.

The nominal derivational suffix sub-class 1 comprises the following nembers:

| -na | 'instrumentel, object used for specific action' |
| :--- | :--- |
| mpj. | 'object in the state desoribed by verb stem' |
| -lusa' | 'those that do or are something described by vorb stem |
| -sa' | 'one that is or does something very often' |
| -telk | 'one who docs something habitually' ' |

Symbols and Examples:
NaSx - nominal derivational suffix

| salka'tutelk | salka'tu- | - telk | 'worker' |
| :--- | :--- | :--- | :--- |
|  | VS | NdSx |  |
| pentuna | penjtu- | - na | 'bridge' |
|  | VS | NaSx |  |

The nominal derivational suffix sub-class 2 comprises the following members which are arranged in paradigmatic form, in a similar manner to the verb inflectionel suffixes dealt with in section 74. Like those suffixes, the nominal derivational suffix sub-class 2 may comprise exponents of one or of two persons. Unipersonal suffixes are set out in paradigm A below, while biporsonal nominal derivational suffixes are set out in paradigm $B$ below.

Paradigm A 'object affected by the verb stem concerned'

| +a'kasu' | 'first person | exclusive singular, | that which | I. . . ${ }^{\prime}$ |
| :---: | :---: | :---: | :---: | :---: |
| -a? ${ }^{\text {a }}$ asu? | " " | inclusive " | " " | we...' |
| -a?mesu? | 'second | singular | " " | you...' |
| - $\mathrm{e}^{\text {? }}$ su? | 'third | 11 | 1 | he...' |
|  | 'first | exclusive plural | " " | we. |
| -a?kawa?su? | , | inclusive " | " | we...' |
| -a?mama"su? | 'second | plural | " " | you...' |
| - erikasu? | 'third | " | " | they...' |

Exponents of person and number may be abstreoted as follows. The exponents of person are similar in every respect to the exponents of person found in the verb paradigns 3 and 4, 57433 . The exponents of number are similax in every respect to the exponents of number found throughout the class A verb paradigms, excopt that the exponent with the first pejsson exolusive exponent is du? not ðek.

Praradigm $B$


All the forms in column e have alternative forms in which the syllable dek is replaced by the syllable din, e.g. -a?mocksu? or a?muðinsur, except for the form ma? 1 kudeksu? for which there is no alternative form.

The exponents of person and number (subject and object) are identical with the exponents of paradigm 3 of series $B$ 自 743 except for the form da, and for the alternative forms of column $e$.

There may or may not be a relationship of concord between the persons and numbers of these nominals and the persons and numbers of other forms in the sentence,

Examples:

| өnka"a'su" | enfka? - - ${ }^{\text {2 }}$ Su? |  | anka? - - anplusu? |
| :---: | :---: | :---: | :---: |
| 'that which he gave' | VS NaSx | 'which he gave me' | VS NaSx |
| kutikerwok a ${ }^{\text {Prapa }}$ (kasu? |  | a「fiam -a'kasu. |  |
| 'my money whioh I have' |  | VS NaSx |  |
| Iuwanta'masu' exjkerkex <br> 'I will give you what you want' |  | Iuwanta- -a?masu |  |
|  |  | VS NaSx |  |

829 Correlation of the nominal stem and root classes with the sub-classes, noun, adjective, pronoun and relative

Nouns may contain stems of all classes of stem listed above, and these stoms comprise nominol roots of all classes except class $X$, and verb stems of all classes.

Adjectives may contain stems of all classes of stem, except Ib and IIa. Adjective stems comprise nominal roots of all classes except Ib, Ic, $I d, \dot{A}$ and $Y$.

Pronouns may contain stems of olass Ia only. Pronoun stems comprise nominal roots of class $I a, B, K$ and $Z$.

Relatives may contain stems of class IIb oniy and so always comprise a verb stem and nominal derivational suffix sub-class 2.

These correlations are illustrated in the following chart.

|  | STEMS |  |  |  |  |  | $\mathrm{R} \quad 0 \quad 0 \mathrm{~T}$ S |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 |  |  |  | II |  | I |  |  |  | II |  | III | A | B | J | K | X | Y | Z |
|  | 2 | b | c | c | a | b | a | b | c | d |  |  |  |  |  |  |  |  |  |  |
| Noun | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\sqrt{ }$ | $\sqrt{ }$ | $\sqrt{ }$ | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |
| idjective | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  |  |  | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ |  | $\sqrt{ }$ | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Pronoun | $\checkmark$ |  |  |  | - |  | $\checkmark$ |  |  |  |  |  |  |  | $\checkmark$ |  | $\checkmark$ |  |  | $\checkmark$ |
| $\begin{aligned} & \text { Relam } \\ & \text { tive } \end{aligned}$ |  |  |  |  |  | $\sqrt{ }$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

83 The non-verbal suffix

831 Definition of the non-verbal suffix
relitive

Any nominal, whether.noun, adjective, or pronoun, may contain in addition to a nominal stem one or more suffixes of the non-verbal class of suffixes. Iny suffix which is found with a nominal or adverb stem but not with a verb or particle stem unless that verb stem is functioning as part of a nominal stem, is a non-verbal suffix.

Any non-verbal suffix may be found with any nominal stem apart from collocational limitations, and any non-verbal suffix may be found with any word suffix except for similar restrictions. Certain non-verbal suffixes may occur with some other non-verbal suffixes but not with others, and, furthermore, the different non-verbal suffixes when found with a second suffix occur in a certajin fixed order relative to each other. Ihese limitations in the distribution of the non-verbal suffixes are the basis for the separate classes which are set up and for the grouping of some classes together.

The different classes of non-verbal suffixes are tormed 'orders'. The numbers of the different orders indionte their relative distribution, the numbering being outwand from tho stem. For the most part this order is fixed, but any exceptions to this general rule will be stated for each order in turn below. Within each order the members are mutually exclusive o.f. 672 .


As cortain orders have a similar distribution with othor orders, a number of groups of orders aro established in order to state this distribution economically.


Orders of group A may occur with ordors of groups B, C, D, and $\#$, but orders of groups $B, C, D$ and $E$ are mutually exclusive with orders of any other group, that is, no member of onders of group B have been found with mombers of the ordors of groups $C, D$ or $\mathbb{T}$ etc. The only exception is that order 9 has been found with order 12. Within each group the orders are not mutually exclusive, only between groups, so that orders 7 and 8 are found together but not 7 and 11.

Since member's of any order may occur with a member of another or of sevoral other onders, exoept as steted above, in prinoiple a nominal may comprise various combinations of these orders up to 12 in number. In foct very many combinations of these orders are found but whereas forms containing one non-verbal suffix are very common indeed, and forms with two non-verbal suffixes are also commor, forms with three nonverbal suffixes are less frequent, forms with four non-verbal suffixes are infrequent and forms with a larger number of non-verbol suffixes ane very raxe.

It may be stated that whereas suffixes of the orders within groups $B, C, D$ and $\Phi$ and of orders 5 and 6 within group $A$ are inflectional in character, since forms with one or other of these suffixes are dissimilax from each other in syntactic function, suffixes of the orders of group A, except 5 and 6, are more derivational in character. On the one hond they have a similar syntactic valence, but on the other hand they have an equally wide distribution as the suffixes which are clearly
infleotional. It would, therefore, seem best not to set up the categories of derivational suffix and inflectional suffix and to assign each of these sufilixes to one of these categories but to treat them as members of one closed system of non-verbal suffixes.

Symbolization: a number indioates the order of the suffix, e.g.,


## 833 The 17 orders of non-verbal suffix

The following details of the 17 orders of non-verbal suffix are given bolow for each order in turn:
a) its membership
b) any relevant comment regarding its distribution with stems,
c) any relevant details regarding its distribution with other ordens and in paxtioular,
(i) any othor orders whioh are always found with the particular order, i.e. which its occurronce presupposes, but not vice versa.
(ii) any veriation from the sequence of distribution with other orders which the number of the order indicates.

Order 1




Order 8
Order 8 comprises three members, -lanlek 'right from' -walek 'as for as, up to' Order 8 may follow or precede orders 4-6, though the usual sequence is inaiceted by the numbering of these on Order 8 is always preceded by order 7 when ers. adverb stem, $\$ 635$ and 93. Fsamples: pið力lkwekkokla 'Irom my house?
monmikwa.tek
'up to the chacra:"


тәрさ0
-da? 'from, with the implication of possession or of the
Order 9 may follow or precede orders $4-6$, though the usual sequence is incicated by the nurabering of these ordWhen suffixed to a nominal stem though not winen suffixed to an adverb stem, § 635 and 93.
 -ñupe? -ðа?
 Exarmples:
yada?
añupa? ợ ${ }^{\text {n }}$ na


$$
\begin{aligned}
& r
\end{aligned}
$$

$$
\begin{aligned}
& \stackrel{\sim}{\sim}
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{l}
M \\
H \\
H \\
H
\end{array} \\
& \stackrel{N}{H}
\end{aligned}
$$

$$
\begin{aligned}
& { }_{\substack{0 \\
4 \\
n \\
n}}
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{l}
Y \\
- \\
-
\end{array} \\
& \text { o }{ }_{\text {M }}^{0} \\
& \text { 荡式 } \\
& \begin{array}{l}
- \\
- \\
-
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \rightarrow 1
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{r}
6 \\
+{ }_{6}^{3} \\
\hline
\end{array} \\
& +\begin{array}{c}
n \\
+ \\
r
\end{array} \\
& \begin{array}{cc}
\infty \\
\\
\text { N } \\
\text { N }
\end{array} \\
& -1 \underset{i}{\underset{1}{\square}} \\
& \begin{array}{ll}
\text { Excludes } \\
\\
\text { Presupposes } \\
\\
\text { Hay precede } & \\
\text { or follow } & 7 \\
& 17
\end{array}
\end{aligned}
$$

Chapter Mine The structure of the adverb and the partiole

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| 9252 | Sub-closses of class III stems |
| 926 | The adverb root |
| 9261 | Definition of adverb roots |
| 9262 | Classes of adverb root |
| 927 | Chart of stems and roots |
| 928 | Adverb derivational suffixes |
| 9281 | Definition of the adverb derivational suffix |
| 9282 | Submolasses of adverb derivational suffixes |
| 9283 | Sub-closs I |
| 9284 | Submclass 2 |
| 93 | Suffixation by the non-verbal suffixes |
| 94 | The partiole |
| 941 | General remarks |
| 942 | The particle stem |
| 94:5 | Suffixation by the word suffix |

The adverb in Jebero may comprise the following elements, adverb stem, non-verbal suffix, and woxd suffix.

The minimum form of the adverb consists of an adverb stem, since all adverb stems may be found alone as words without any affixation.

The maximum form in theory would comprise stem, and up to a large number of non-verbal suffixes and further word suffixes. In fact while adverbs with many different non-verbal suffixes and every word suffix are found long forms with many suffixes do not ocour. Forms with one non-verbal suffix and/or one word suffix are very common, forms with two non-verbal suffixes and/or two word suffixes are infrequent and forms with three or more suficixes of either class are very rare.

Subsequent seotions of this chapter will deal with each of these el ements within the adverb and will state any limitations in the distribution of the elements with each other. Section 92 will treat the adverb stem, and section 93 will deal with suffixation by the non-verbal suffixes. Word suffixes are treated in Section 67.

Symbols: AS - adverb stem

92 The adverb stem

$$
\because "
$$

Q21 Definition of the adverb stem

The stem of an adverb is that minimal element which when standing alone without affixation may function as an adverb. For the function of the adverb see 15533 and 554 .

Adverb stems always comprise a nucleus element and may also comprise a satellite element.

There are three types of nucleus and adverb stems are divided into three classes an the basis of the type of nucleus of which they are comprised.

Class I adverb stems are those whose nucleus is an adverb root. This class is described in section 923.

Class II adverb stems are those whose nucleus is a verb stem. This class is treated in section 924.

Class III adverb stems are those whose nucleus is a nominal stem. This class is described in section 925.

The satellite elements of adverb stems will be described in conjunction with the different muclei with which they are found and in section 928.

Symbols and examples:

| Adverb |
| :---: | :---: |
| $A$ |$=$| adverb stem |
| :---: |
| AS |$\pm$| non verbal suffix |
| :---: |
| nvSx |$\pm$| word suffix |
| :---: |



923 Class I stems $\rightarrow$ adverb root nucleus adverb stems

9231 Definition of Olass I adverb stems

A11 adverb stems whioh oomprise an adverb root are stems of olass $I_{0}$

Though this olass is not as large in number as class IIT, members of this class are found very much more frequently than the members of either of the other two olasses of stem. In fact in a very large myoridy of occurrenoes of adverbs the stems are found to be class I stems.

9232 Submolasses of class I stems

Qlass I stems are divided into three submolasses on the basis of their intemal structure.

Sub-alass a, single root stems, comprise a single adverb root without any other element. Any adverb root, of any class, may be found in a class Ia adver'b stem. The great majority of class I stems are of this sub-olass.
Sub-olass b, double root stems, comprise two adverb roots without any other element. The first and second roots of class Ib stems are both members of class II adver'b root. This subualass is a very small one.
Subwoless 0 , adverb and nominal root stems, comprise an adverb root followed by a nominal root without any other element. The adverb root is a member of root class II, and the nominal root is a member of root alasses II or III. This stem-olass is a very small one.

Symbols and Examples:

ðekpizi" ASIa 'might' 犭asu’ðekpizi' ASIb 'in the early
ekzisupina ASIc 'day after tomorrow' hours of the morning ${ }^{\text {! }}$

924 Class II adverb stems - verb stem nucleus adverb stems

9241 Definition of class II stems

All adverb stems which comprise a verb stem are stems of class II.

Olass II stems are divided into two sub-classes on the basis: of the derivetionel suffixes which are found within then.

Submoless a comprises any verb stem followed by an adverb derivational suffix of class la, see section 928 .

Submclass $b$ comprises any verb stem followed by an adverb derivotionnl suffix of class Ib , see section 928.

Since both sub-classes comprise any verb stem, the number of members of this olass is limitless in theory, but in fact members of this class though more numerous than those of the other two classes, do not occur as frequently as those of class one.

Examples:

| cikst? | $\begin{aligned} & \text { cik- } \\ & \text { VS } \end{aligned}$ | $\begin{aligned} & -s u 9 \\ & \operatorname{sidsx} \end{aligned}$ | 'straightway' |
| :---: | :---: | :---: | :---: |
| erjka?piPpu? | enika VS | $\begin{aligned} & -a^{9 p i}{ }^{\circ p u ?} \\ & \text { 4dSx} \end{aligned}$ | 'the day he gave' |

925 Glass III stems - nominal stem nucleus adverb stems

9251 Definition of class ITI stems

All adverb stems which comprise a nominal stem are stems of Class III, except when that nominal stem is preceded by an adverb root.

Class III stems are divided into two sub-olasses on the basis of the derivational suffixes which are found within them.

Sub-class $a$, comprises a nominal stem followed by an adverb derivational suffix of class $2 a$, see section 928. The nominal stem is always of class Ia and comprises a nominal root always of class $X$, see section 8268.

Sub-class b, comprises a nominal stem followed by an adverb derivational suffix of class 2 b , see s 928 . The nominal stem is always of olass Ia or IIa, comprising a nominal root of class $Y$, see S 8268, and a verb root of elass $X$, see $\$ 726.7$.

The members of both sub-classes of closs III stems are few in number and are not found very frequently in Jebero material.

Examples:

| wapuPlu? | wapu? | -lu? | u'lanwelzipi? | UPlanwekzi | -pi? |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 'many times' | NS | AdSx | 'winter time' | NS | AdSx |

9261 Dcfinition of adverb root
Any part of an adverb which cannot be further sub-divided into further moxphenes, and which con function alone without offixation as an adverb stan is an adverb root.

Two classes of adverb root are set up on the basis of the distribution of the roots within the adverb stem.

Class I adverb roots are those roots which are only found singly in adverb stens. Roots of this class are found in class Ia stems only. The great majority of adverb roots are of this class.

Class II adverb roots are those roots which are found either singly, or with another root (whether adverb or nominal) in adverb stems. Roots of this class are found in stems of classes $\mathbb{I a}$, Ib, or Ic. The number of roots in this olass is very small.

Ssmaiolis and Examples: ART - adverb root of class I
ARII - adverb root of class II
ina ARI 'fori side' - dokpizi' ARII 'night'

927 Chart of stems and roots
This chart summarizes the correlations between the different adverb stem and root classes.

| . |  |  | S T E M S |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | I |  |  | II |  | III |  |
|  |  |  | a | b | c | a | b | a | b |
| R | A | I | $\checkmark$ |  |  |  |  |  |  |
|  |  | II | $\sqrt{ }$ | $\begin{aligned} & \text { 1st } \\ & \text { 2nd } \end{aligned}$ | 1st |  |  |  |  |
| 0 | N | II |  |  | 2nd |  |  |  |  |
|  |  | X |  |  |  |  |  | $\sqrt{ }$ |  |
| S |  | Y |  |  |  |  |  |  | $\checkmark$ |
|  | V | 211 |  |  |  | $\checkmark$ | $\sqrt{ }$ |  |  |

## 9281 Definition of the adverb derivational suffix

Adverb derivational suffixes may be defined as those suffixes which are found following a stem of another class, stem and suffix forming an adverb stem.

Two sub-classes are set up on the basis of the distribution of the suffixes with different classes of stems.
Symbolization: AdSx followed by a number symbolizes the sub-class of the adverb derivational suffix

## 9283 Subwolass 1.

Sub-class 1 comprises those adverb derivational suffixes which are suffixed to a verb stem, stem and suffix forming an adverb stem.

Shamolass lis divided into two further sub-classes, la and lb, on the basis of the abstraction of exponents of person and number.

Sub-class la comprises suffixes from which no exponent of person may be abstraoted and includes one member.
-su' 'adverbialiser'

Symbols and Examples:
AdSxla - adverb derivational suffix of class la
AdSxlb - adverb derivational suffix of class lb
wiwelsu?

| wiwol'- | -sta? |
| :---: | :---: |
| VS | AdSxla |

${ }^{\prime}$ quickly'

Sub-class lb comprises suffixes from which exponents of person and number may be abstraoted. Suffixes of this sub-class are arranged in paradigmatic form, in a similar manner to the verb inflectional suffix paradigms, 874 , and the nominal derivational suffixes class 2, 5 828. Like these other series the adverb derivational class 1b mayr comprise exponents of one or two persons. The two sets of unipersonal derivational suffixes are sct out first and then the third set, the only bipersonal adverb derivational suffixes are set out.

Paradigm Al

| -alk | 'locational, | first person | exclusive | singular ${ }^{+}$ |
| :---: | :---: | :---: | :---: | :---: |
| -alk | - | " " | inclusive | $1 \%$, |
| -akma | 10 | second | singular | , |
| -ak | 1 " | third | " |  |
| -alkkuðək | 1 " | foirst | exclusive | plumal |
| -alkwa? | 1 " | " " | inclusive | " ' |
| -alknama? | 1 " | second | plural |  |
| -riluek | 1 " | third | , |  |

The exponents of number are identical with the exponents of number found throughout the verb paradigms, except for the cumulative exponent of person and number for the third person plurel.

The exponents of person are identical with the exponents of person found in paradigm 5 of the class A verb inflectional suffixes, ${ }^{6} 74332$

Examples: saka?tak salka?t- $\begin{gathered}\text { VS ak } \\ \operatorname{LaSxlb}\end{gathered}$ 'where he worked'
Paradigm A2

|  |  | the | day | when...g | first p | rson | exclusive | singulex' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | " | " | " | " | " | inclusive | 1 |
| -apmapi?pu? | ! | " | " | " | second. | " | singular | - |
| -a?pi?pu? | 1 | 1 | " | " | third | 18 | " | ! |
| -a'kuðəkpi?pu? | ! | 12 | " | " | first | " | exlusive | pIural |
| -a\%kawa?pi?pu? |  | " | " | " | " | " | inclusive | " |
| -a"mama?pi?pu? | 1 | ${ }^{8}$ | " | " | second | " | plural |  |
| - xkapi?pu? |  | " | " | " | thi.rd | " | plo | , |

The exponents of person which may be abstracted are identical with the exponents abstracted from paradigms 3 and 4 of the verb inflectional suffixes cless A, $\quad$ 74332. The exponents of number are identical with the exponents of number wich are found throughout the verb inflectional suffixes.

This whole paradigm is very similar to the paradigm already set out for the nominal derivational class 2, 8 828. The resemblance is complete if the final syllable -su' of the nominal series is replaced by the syllables -pi?pu" for the adverb derivational suffixes.

Paradigm B 1 The bipersonal forms corresponding to the unipersonal forms of paradigm $A 2$

|  | $a \quad b \quad 0$ | e f | g |
| :---: | :---: | :---: | :---: |
| a | -a'npi?pu? |  | -aPrma?piPpu? |
| c | -a?nkupi'pu? - | -a?muðәkpi?pu9 |  |
| d |  |  -a? !gmu? wa | - -9ma?pi?pu? <br> pi'pu? |
| $e$ |  <br> $-{ }^{\text {² }}$ kuðimpi?pu" |  | -a?kuðənna"pi?pu" or -a'uððinma?pi'pu? |
| g | ma?mamau9kupi?pu? | -a'mamau'kuðekpi’p |  |
| h |  - әr゙kegmu Ppi ${ }^{\text {Ppu? }}$ | - orikuðelcpi"pu" -arkeymu? | -arkəyma"pi"pu? "pi"pu" |

The exponents of person and number (subject and object) are identi.cal with the exponents abstracted from the members of paradigms B 3 and 4, 574432 .

This whole series of suffixes is very similar to the nominal derivational series sub-class 2 , paradigm $\mathbb{B}$, $\$ 828$.

Examples:


9284 Sub-class 2

Sub-class 2 oomprises those adverb derivational suffixes which are suffixed to a nominal stem, stem and suffix forming an adverb stem,

Sub-class 2 is divided into two further sub-classes, $2 a$ and 2 b , on the basis of distribution with the nominal stem.

Sub-class 2 a comprises those suffixes which are fourd suffixed to a nominal stom comprising a nominal root of class $X$, $\{8268$, and includes one member,
-lu? 'times'

Sub-class 2 b comprises suffixes which are found suffixed to a nominal stem comprising a nominal root of class $Y$, 88268 , and includes one member,

$$
\begin{array}{r}
\text {-pi? the day when, the } \\
\text { time when' }
\end{array}
$$

Symbols and Examplos:

$$
\begin{array}{ccccc}
\text { AdSx2a }-~ A d v e r b ~ d e r i v a t i o n a l ~ s u f f i x ~ o f ~ s u b-c l a s s ~ & 2 a \\
\text { AdSx2b } & " 1 & " 1 & " 1 & " 1
\end{array}
$$



## 93 Suffixation by the non-verbal suffixes

Any adverb may contain, in addition to an adverb stem, one or more suffixes of the nonmerbal class of suffixes, of orders 1, 5-9, 11, 12, 15 and 17. Any member of these orders of suffixes may be found suffixed to an adverb stem except for one member of order 7, mkok. All these suffixes are members of groups $A, B$ and $C$ of the non-verbal suffixes. Adverbs are never suffixed by members of groups $D$ and $E$.

All the dotails of the distribution of these suffixes writh the nominal stem apply in the same way to their distribution with the advorb stem, $\$ 833$, except that members of orders 8 and 9 are not found to be preceded by order 7 when suffixed to adverb stems as is the case when they aro suffixed to nominal stems.

Txamples:


94 The particle

## 941 General remarks

All particles comprise a stem with or without one or more suffixes of the word auflix series. See sections 633 for the definition of the particle, 663 for sub-classes of the particle, 67 for the word suffix class and 451 and 554 for the syntaotic function of the particle.

Section 942 will deal with the particle stem and 943 with the suffixation of the particle by the word suffix class of suffixes.

### 94.2 The particle stem

All particle stems comprise one morpheme only. There are no particle stems which are derived from stems or roots of other classes, nor are stems of particles found as part of the stems of the words of other word classes.

943 Suffixation by the word suffix
In principle any particle may be suffixed by any member of the word suffix class and several such suffixes may be found with particle stems, though in the material exanined usually only one suffix is found in any one word. In the majority of cases in wich particles are found in suffixed form the suffix is -ima 'and', 8673.

Symbols and Examples:

$$
P \text { - particle }
$$

ni kalui ${ }^{9}$ pi?ñina?
'they are not sick'
ane"za" pi? okapatama"
'take care now, don't look behind'
fii kalui"pi"nina"
$P \quad V$
anor $-1 a^{\circ}$ pi? okapatama?

The structure and function of the verbal piece in Jebero have now been described and may be summriged as follows.

The verbal piece functions within the two Pavourite sentencetypes of the language. Indeed, the verbal piece marks the $f$ avourite sentencemtype as against the non-favourite sentencemtype, for all favourite sentence-types include a verbol piece and no verbal piece is found in any of the non-favourite sentencewtypes. There is, thus, complete congruence between verbal piece and favourite sentence-typa.

The structure of the verbal piece has been stated in terms of elements which funotion within it, namely, the clause, phrase, and word. The structure of these elements has been stated in terms of the elements which function within them. In this way all these elenents are successively broken down into single words. The word itself is described not only in torms of its function in these different larger elements, which is, in fact, the basis for the establishment of word clesses, but also in terms of its internal struoturing of morphemes, which is the bosis for stem, root, and offix classes.

The verbal piece has, thus, bcen vicwed as a complex grommatical element whose function and structure can best be described by means of a series of statements at different levels working dow from the level of the sentence structure to the level of the single morpheme. These levels may be presented diagrammatically:

Sentence

Piece

Olause

Phrase

Word

Morpheme

A higher element may consist of, or include, any lower element but not vice versn, except that a clause may comprise an included sentence or piece, and a relative phrase may comprise an included clause.

Chapter 11 Texts

The following texts were collected in the field and are given together with a translation of each. A full grammatical analysis of the first text is provided.

TEXT A 'The boy and the blaok tiger' Carlos Talexio
 Iong ago men now dead to a hunt they went four of them

2 B pa?ami?ma 6, kamajinina? 7 ala?sa.8 wila 9y pa9rot 10, going they ordered a boy go
3 бәk 11 mantər 12. 0 itanni?ma 13, a"panta?łina? 14 dakukucik 15. water fetch saying they made go to the shore
4 D pa"apilanta"yima 16, kananta"łi 17 kołuluñinii? 18, when he was going he found a black tiger
5 wanerapasilk 19. E ma?nega?ta? 20 asu? 21, supay 22 when he was standing whatever this demon
6 nuka"a 23, tayima 24, ad̀nca? 2 jima 25, papinen 26 wintenca" 27 . it is saying returning his father he came and told
7 F ma'nery 28 supaypa?29 kananok 30. G kemuluñifi"pa’ 31, what demon I found a black tiger perhaps
8 papa 32, itułima 33. H ma?nəna?ta? 34 kenma 35 torkwa? ðan 36. father he said whatever you fearing
9 tumipala 37, tula"nnima 38, latokinina? 39 wila 9. you are deceiving saying they did not believe the boy
10 I nu"si"ma 40 ornasikime 41, ipa2 42 tontanna" 43 , thus when it is late now smoothing their beds
11 Wicizina? 44 dekpiłi45. J wicia"sehima 46 dekpiłi"45, they slept in the night when they slept in the night
 now the black tiger ..er.. growied wanting to come towards them
13 iyokåðəkay 50. $K$ nu?sikima 51, poklu’pawinðokan 52 wanting to eat them when it is done calling them in vain
U4 nana 52 wilalor 54, tokka Lapidekan 55 kadunamuluk 56 the boy Iunning and leaving them to the fork of a wacra-
15 nampolkan 57, kupeñik 58 ðưpuñi 59. I nu"anima 60, climbing at the top shoot he went and sat doing this
16 nenokla 61 łi?apałima 62, wonca"an 63, nana 53 kełuluñiñ'9 18 from there he was seeing coming the black tiger
 $\begin{array}{lll}\text { polkwo?nca? }{ }^{2} \text { i } 64 & \text { tampu?dunsanempalk 65. } & \text { M nana } 53 \\ \text { stretched out } & \text { at the side of their shelter } & \text { he }\end{array}$

18 nu9anima 60, polkwa?nima 66 ipa"inci 67 inlu-inlu9-inlu9doing this stretching out now when he is licking
19 tutampa?payima 68, ipa?linci 67 piłi?tułi 69 ala?sa? 8. his paws from now he seized one
 he washearing crushing his head he sucked.
21 wekladelnon 73 uwitan 74. 0 nusikima 51, ali?la 75 his blood drinking when it is done another
22 nu’tanima 76, dekke?cuðokłi 77. P nuªmima 60, nana 53 doing he killed them all doing this the
23 ali?lima 78 insekita?su? 79 ðunke? i 80. other one which had hidden himself he looked for


## TRANSLAPION

Iong ago four men went hunting. When they went they ordered a boy to go and fetch some water. They made him go to the water-shore. When he was going he found a black tiger standing.
'Whatever is this? It's a demon,' he said,
and returned and came and told his father.
'Thatever demon did I find? Perhaps it's a black tiger, father', he said.
'You are deceiving us being afraid of whatever it is.' they said, and did not believe the boy. Then when it is late, after they had made their beds, they slept in the night. When they slept in the night the black tiger growiled wanting to come to them, wanting to eat them, Then, having called the men in vain, the boy ran leaving them and climbing up a wacrapona tree he wert and sat down at the top shoot. Having done this, from there he saw the blaols tiger coming and stretching out by their shelter. Then, having stretched himself and licked his paws, he seized one of them. Kau! SuPSu": he heard the tiger orush his head and suck up and drink his blood. When he had done this he did the same to another and so he killed them all. Then he looked for the other one who had hidden himself. Having looked he found him when he sat on high.

Then still looking he cane towaris him，olimbing up the wacrapona tree． When he olimbed he met him with a speer at his throat．The spear pierced and entered oompletoly．When he did that now he killed him and the black tiger fell close by the tamuk of the wacrepona tree． Thus it was when it dawned．The boy sitting on high when it dawned saw the black tigex sitting dead．
＇How shall I get dom now？Perlhaps he is still alive，＇the boy said，
and was sitting on high．When it is getting late，wanting to come down and descending slowily，he saw the black tiger is dead．Then coming dow and jumping now the boy caune back．Now I have finished，Don Juan．

## GRAMMATICAT ANATIYSIS：

This analysis takes each sentence in turn，states the sentence－ type and then the structure of the sentence and the lower－level elements down as far as tho stem of each word．In the case of stems comprising more than one morpheme the analysis goes down to the root level． Figures refer to the words in the toxd except that reference to the relevant section is given when any olement is first introduced．The word＇comprising＇is symbolized by－．Series of statements are shortened to avoid unecessary repetition by the use of commas as follows：
Co－STiI．STII－VP．VP－VH．VH－paranni̊ma V eto．，is abbreviated


VX（ 13 s 55）．VH－parina．V（

 （玉 82）－k nvisw（s 83）。 NP－N（2）N（5）．N－iyait kurlusa？N， iyazi＂NS－ku？nvSx－lusa＂nvSx．N－inkatu＂daporima $N$ ，inkatu＂NS －daper nvSx－ima WSx．

```
B STI (S 44I) - VP, VH (7) VX (6 8-12). VH - kama\i#ina? V, kama|im
    VS _1_inaP ViSx. VX - Co (6 8 5521) FN (89 $ 5531) Ci (10 $ 5523)
Ci (11 12). Cc - STiT, VP, VH, pa'anni'ma V, par- Vs -arna` Visx mima WSx
FNN - NH (9 655311) NX (8 655313). NH - wila N, n, NS. NX - ala`sa? N,
a, alar-NS -sa? nvix. Ci - STiI, VP, VH, pa`ker V, pa?- VS -kert VíSx.
Ci - STiI, VP, VH (12) VX (1I). VE - manter V, ma- VS -ntan_ VE
(| 73) wen ViSx. VX - N, \partial0k N, NS.
```


pantaপ- VS mina? ViSx. $V X-C a(13) N(15) . \quad C c-S T i I, ~ V P$,
VH, itanni ma $V$, itam VS -anna? Visx -ima WSx. $N$ - delkukucik $N$,
dokukucin NS m nvSx.


Co - SItiI, VP, VE, parapilantapima $V$, pa- VS -apa- VE -ila- VE
-nta"-VE -aj ViSx mima WSx. N - kolulữinio N, NS. Cn - STiI, VP,
VH, wenerapasilk $V$, waner- VS -apa- VE -sik ViSx.

E STI－VP，VH（26）VX（20 25）．VH－wintencanきi V，wint－VS
- อnoar- VE -7i Visi. VX - Cc (20-3) Ci (24) N (25). Cc - STiI,
$\mathrm{VP}, \mathrm{VH}(23)$ VX (20-22). VH - tanima $V$, tan VS -an ViSx -ima WSx.

AI - manena?ta? a, man NS nen nvSx -a?ta? WSx. N-asu N, NS.
Ci - StiIV $(\mathrm{G} 452), \mathbb{N}(22) \quad \mathrm{Vp}(23 \mathrm{~B} 76) . \quad \mathbb{N}$ - supay $\mathbb{N}$, NS.
 kanant VS mok ViSx．VX－FN，NE（29）NX（28）．NHI－supaypa？$N$ ， n，supay $\mathbb{N S}$－ipa？WSx．Nx－månen N，aI，man NS－nen nvSx．


$\mathbb{N}$－kełulữinispa？$N$ ，kełuluñiñi？NS－ipe WSx．Voc－papa N，NS．
H STI－VP，VH（39）VX（34－38，9）．VH－latoki？ñina V，latek－VS
－in－VE ffina．ViSx．VX－Cc（34－8）N（9）${ }^{1}$ Cc－STiI，VP，
 －ima Hisx．VX－Ci，STiI，VP，VH（37）VX（34－6）．VH－tumu pala V，


 －non nvSx－a『ta？WSX．NP－Krenma N，NS．

I STI－VP，VH（44）VX（4，0－3 45）．VH－wiciのłina V，wicion VS
－Zina？ViSx．VX－Cn（40－1）Cc（42－3）A（45）．Cn－STiI，VP，
VH（4J．）VX．（4，0）．VH－ernwasikima V，oirva－VS－sik ViSx－ima WSx． VK－mu？si＂ma A，nu？su？AS－ima WSx．Cc－STiI，VP，VH（43）VX（42）． VF－tontanna？$V$ ，tentan－VS－amna＂ViSx．Vx－ipa＂A，AS．
$J \quad \operatorname{STIT}-\mathrm{VP}(46454247-50) \mathrm{NP}(18) . \quad \mathrm{VP} . . \mathrm{VH}(48) \quad \mathrm{VX}(4245-74952)$ ．
VH－pallałi V，pakla－VS－Zi ViSx．VX－Cn（46 45）A（42）
EF（47 E 68）Cc（4950）．Cn－STiI，VP，VF（46）VX（45）．VHi ．． wiciansorima V，wicir－VS－a？ser ViSx－ima WSx．VX－A（45）．

 V，iya－VePx kam VS－dek－VE－an ViSx．NP－N（18）．

K STI－VP，VH（59）VX（51－8）．VH－ðuๆkuñi V，ðup－VS－loun－VE －ni ViSx．VX－Cn（51）Co（52－7）N（58）．n－STiI，V．，VH， nu？sikima $V$ ，nu？－VS－sik ViSx－ima WSx，Co－STiII，VP（52 55－7） NP（53－4）．VP－VHc（52 55 57）VK（56）．VHc－pelklu？parinðekan V， poklu？－VS－apa－VE－winm VTA－ðok－VE－an ViSx；tolkarlapidekan V， tolua？－VS－lapi－VE－－dek－VE－an ViSx；nampokan V，nampolk－VS －ay Visx．VX－N，N－kadunamuluk $N$ ，kadunamulu NS -k nVSx． NS－kaduna NR mulu NR．NP－FN，NH（54）NX（53）．NH－wilelop N， wila NS－lor nvSx．NX－nanaN，a，NS．

I．STI－VP，VH（62）VX（60－1 63－5）．VH－Zipapałima V，zi－VS －apa－VE－ui TiSx－ima WSx．VX－Cc（60）A（61）Ci（63－5）． Cc－STiI，VP，VH，nuªnima $V$ ，nu？．．VS－an ViSx－ima WSx，A－ nanokla A，nanok AS－Ia nvSx．Ci－STiII，VP（63，64－5）NP（53 18）． $\mathrm{VP}-\mathrm{VH}(64)$ VX $(6365)$ ．VH－pelkwe？nca？${ }^{2} \mathrm{i}$ V，pekkwa？VS－enca？ VE－彐i ViSx．$V X-C c(63) N(65)$ ．Co－STiI，VP wonca＇an V，
 $n v S x$－$k$ nvSx，tampu＂NR ounsa NR．NP－FNN，NEI（18）NX（53）．

M STI－VP，VH（69）VX（53，6066－8 8）．VH－pizintazi V，piłiVS －tu－VE－ Cc －STiII，VP（60）NP（53）． $\mathrm{Cc}-\mathrm{STiI}, \mathrm{VP}, \mathrm{VHe}(6668)$ VX（67）． VHc－pokka＇nima V，polkwa？．．VS－an ViSx－ima ViSx；inlu？inlu？－inlu？ tutampa ${ }^{2}$ panima $V$ ，inlu ${ }^{2}$－inlu＂－inlu＂ntutampan．．VS－apa－VE－an Visx －ima WSx．VS－inluinlu－inlu－VR－tum VsSx（ ${ }^{\circ}$ 729）tampa？NR． VX－A，ipaPlinci A，ipa？AS－1a nvSx－inci WSx．

N STI－VP， $\mathrm{VH}(70) \mathrm{VX}(71-4)$ ． $\mathrm{VH}-$ lawollapalima V ，lawok－VS
－apa－VE $-7 i$ ViSx－ima WSx．VX－Ci，SIiI，VF，VH（72）VX（71 73－4）．

VS－sup－sun－sun－VR－a．t－VsSx．VX－Cc（7I）Cc（73－4）．Cc－StiI， VP，VH，kau－atumutu？ıjima $V$ ，kauna？tumutu－VS－an ViSx－ima WSx．VS－ kau？－VR－a？tu－VsSx mutu？NR．Cc－STiI，VP，VH（74）VX（73）VH－ uwitan $V$ ，uwi－VS－t－VEA－an ViSm．VX－wokladoknen N，wokladok NS－nan

I The analysis of words which have already been analysed is not repeated．
2 The semi－colon is used to separate between the breakdown of the two or more heads of a VHe．

0 STI - VP, VH (77) VX (51 75-6). VH - ðolke?cuðokzi V, дəəker'-
 -ker- VR (目 7264). VX - Cn (51) Cc (75-6). Cc - STiI, VP, VH (76) VX (75). VH - nutanima V, nun VS -t- VE -ay Visx mima WSx. VX - ali"la $N$, ala" NS -iPla WSx.
 - ㄹi ViSx. VX - Cc (60) MN (53 78-9). FN - NH (78) NX (53 79). $\mathbb{N H}$ - aliPlima $N$, ala? NS -iPla WSx -ima WSx. NX - a (53) r (79 s 5531 and 6644). $r$ - insekita"su" $N$, insekita-VS -a?su? Nasx (s828).

Q $\quad S T I-V P, V A(82) V X(81.83-4)$. VH - kanañi V, kanan- VS -ni ViSx. VX -- Co (81) Cn (83-4). Co - STiI, VP, VH, dunkenapanima V, dunker- VS -apa-VE -an ViSx -ima WSx. Cn - STiI, VF, VH (84) VX (83). VH - ðu?apasik V, ðuq- VS -apa- VE -sik ViSx. VX musenkelcima $N$, musen- NS -kek nvSx -ima WSx.

R STI - VP, VH (86) VX (60 8542 87) . VH - nampakwatapilazima $V$, nampok- VS -wa- VE -t- VE -apa-VE -ila-VE -iai ViSx -ima WSx. $\mathrm{VX}-\mathrm{Cc}(60) \mathrm{Cc}(8542) \mathrm{A}(42) \mathrm{N}(87) . \quad \mathrm{Cc}-\mathrm{StiI}, \mathrm{VP}, \mathrm{VH}, \mathrm{mu}$ anjima V. Cc-STiI, VP, VH (85) VX (42). VH - dunkexapani"la V, ðunkerm VS -apa- VE -an ViSx -i?la WSx. VX - A. N - kadrunak N, kadouna NS -k nvSx.

S STI - VP, VH (90) VX (88-9 91-2). VH - a9kape?i $V$, a"- VePX kaper- VS -zi ViSx. $V X-C n(88) \mathbb{N}(89) \mathbb{N}(91) N(92) . \quad$ Cn STiI, VP, VH, nampeltapilasikima $V$, nampek- VS -apa- VE -ila- VE -sik ViSx -ima WSx. $N$ - rejonlek $N$, rejon NS $-10 k n v S x$. $N$ - asu? $N$, NS. $N$ - teksinnikinci $N$, toksi' $N S$-nez nvSx $-k$ nvSx -inci WSx.

T STII - VP (93) $\operatorname{NP}(94) . \quad \mathrm{VP}-\mathrm{VH}$, ðа"suke?ñantapilazi V ,



U STI - VP, VHe (95 96 97) VX ( 6753 18). VHc - nutapazima V, nu? VS -t- VE -apa- VE - $\mathrm{Z} i \mathrm{ViSx}$-ima WSx; paki"tutima V,
 VE - Zi ViSx. $\quad \mathrm{VX}-\mathrm{A}(67)$ FN (5318). WN - NII (18) NX (53).
$\mathrm{V} \quad \mathrm{STI}-\mathrm{VP}, \mathrm{VH}(98) \mathrm{VX}(40)$. VH - welkinantułi $V$, wekzinan- VS -tu- VE -łi ViSx.

W STII - VP (99-104) $\operatorname{NP}(539) . \quad V P-V H(102) V X(99-10118103-4)$. VH - Zipi $V$, $\mathrm{Ei}^{2}$ - Vs - Zi ViSx. VX - Co (91-100) Cn (101)
$\mathrm{Ci}(18103-4) . \quad \mathrm{Cc}-\mathrm{StiI}, \mathrm{VP}, \mathrm{VH}(99) \mathrm{VX}(100) . \mathrm{VH}$ - du9apan V, ðuొ- VS -apa- VE -an ViSx. VX - musenkek N, musen- NS -kek nvSx. Cn - STiI, VP, VH, welzisikima V, wekzi- VS -sik ViSx -ima WSx. Ci - STiII, VP (103) NP (18 104). VP - VH, du"apazi V, du?m VS -apa- VE -łi Visx. NP - N (18) N (104). N (104) - cimipi $N$, cimi- VS -pi NaSx. $N P-M N(539), N H(9) \quad N X(53)$.
$X \quad \operatorname{STII}-\operatorname{VP}(105-824,103100)$ NP (539). VP - VE (103) VX (105-8 24 100). $\mathrm{VX}-\mathrm{Co}(105-824) \quad \mathrm{N}(100) . \quad \mathrm{Co}-\mathrm{StiI}, \mathrm{VP}, \mathrm{VH}(24)$
$\mathrm{VX}(105-842) . \quad \mathrm{VH}-\operatorname{tanjima}(24) . \quad \mathrm{VX}-\mathrm{Ci}(105-7) \mathrm{Ci}(10842)$. Ci - STjI, VP, VH (106) VX (105). VH - nu ${ }^{\circ}$ Wontecek $V$, nupran- VS -t- VE -ocolk Visx. VX - A (105) A (107). A - ma"pu"si'na A, ma"pu"su" AS -ina WSx. A-ipaワla A, ipa" AS -la nvSx. Gi StiI, VP, VH (108) VX (42). VH - nampipałima V, nampi- VS -apa- VE - -I ViSx mima TVSx. NP - FN, NH (9) NX (53).
 VS - ti ViSx -ima WSx. VX - Cn (109-10) Cc (42 111) Cc (112-13) $N(115) \quad N(18) . \quad \operatorname{Cn}-\operatorname{STII}, \mathrm{VP}, \mathrm{VH}(110) \mathrm{VX}(109) . \quad \mathrm{VH}$ - arwapilasikima V, or'wa- VS -apa- VE -ilam VE -sik ViSx -ima WSx. VX -ipi’maci A, ipa" AS -ima WSx -ci WSx. Cc-StiI, VP, VH (III) VX (42). VH - iyanu9\%onca? nima $V$, iya- VePx nuPwen- VS -enca? VE -an ViSx
 nuwan- VS -enca- VE -an VE mima WSx. VX - utiPlima A, utila AS -ima WSx, $N$ - cimipima $N$, cimi- VS -pi NaSx -ima WSx.
$Z \quad$ STII - VP (116-118 11367 ) NP (9). VP - VH (118) VX (116-7
113 67). VH - wenca² V, wonca²- VS mit ViSx. VX - Cc (116
113) $\mathrm{Cc}(117)$ A (67). $\mathrm{Cc}-\mathrm{StiI}, \mathrm{VP}, \mathrm{VH}(113) \mathrm{VX}(116) . \mathrm{VH}-$
 nanels AS -la lVVSx -ima WSx. Cc - StiI, VP, VH, indelanima $V$, inVePx dolk- VS man Visx -ima WSx.
$A A \quad S I I-V P(42$ 119) $\operatorname{VOO}(120-1) . \quad V P-V H(119) \quad V X(42) . \quad V H-$ a?ta?wantulok $V$, $a^{\circ}$. VePx ta? wan- VS -tu- VE -lok ViSx.
$V X-A(42) . \quad V o c-\mathbb{N}, ~ N H$ (121) NX (120). $N \mathbb{H} m$ Juan $N, n, N S$. NX - Don N, a, NS.



48 ortwafincima kulkñe?zupa? woltapinca"i. nu"si?na in late afternoon by the pmucar region he was coming thus
49 wenca?ima wenca?ima tekka"pinca"tima a"pimuwanlakak he came he came he is coming ruming where the path was open


53 utawanfe ektunca"zi fiwiluk. nu"anjma nana iyałi"ku" about $9 \mathrm{p} . \mathrm{m}_{\mathrm{o}}$ he reached Jeberos doing this the man .
54 nana napi" supayler okpai'ni. wenca? 1 ina, that man long ago the demon did not carry off having come
55 ma"puPla?nca, suð̌in, itułima tianenler. ma?nen what's the matter nephew said his aunt whatever
 demon aunt yesterday saw me doing this I here

| 57 | ina | ð̀olkpizis | wenca: ${ }^{\circ} \mathrm{k}$. | max | дekpiㄱi? |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ther | at nijght | I came |  | in the ni |

58 wellwaterken, $\quad$ lumpawas, iterkusumalelk, I will come to you let's talk because of what they said to me
59 Ii?amu, wenca?lek, itułima, wici'sikiminna ituzi hu...! having seen I came he said when he slept he said Ho....'
60 ma"ki?nca kenma pantarla, iyazi". panti"na?nka why you returned brother if you had not returned
61 nui onm"wa?lek pa"apananserwe". ape?cumasu" it is thus with us we would be walking because of jourdisturbing
62 pi? ${ }^{2}{ }^{\circ} \mathrm{ca}$.masu" lawekamodek asu", kuða ya? that which you struck we having this we yesterday
63 pa."watuwiñiðin iyamakunuò̀ing itułini Pna. we went to you in vain wanting to go and take you they said
64 nu"anjma, nana napi" nana iyazi", Ascensio having done this that man long ago that man Ascensio
65 Maka iterkasu, cipyokili nana sampakla. Maka which they called he escaped the from the lake

## TRANSLATION

Iong ago a man, a rubber tapper, was working alone on the Paulayacu. I speak of a man now dead, Ascensio Maka. He worked maber there alone for very many years. Brery aftermoon when ho came back he used to play his flute and drum. Thus he was there alone. He was there very many years, working rubber on the Paulayacu, as they say. A lake was forming on the Paulayacu. The lake was growing from down stream. That lake was large and very fierce.

But when every aiternoon the water demons heard his piping, one afternoon they left the lake and came to the man. Then when he was drumming in the late afternoon two men went towards him when he was piping once again, having come back from work. When he was doing that they went and said, "Are you thexe, brother?" "Yes, I am. From where have you come?" he said to them. "We also are journeying here loolking for rubbers brother. From there we also caneout of the jungle here," he said. "Wells" "Having heard this drumning of Yours along there we came here saying, 'Perhaps there is a man over there," "they said to the man. "I am living here and all alone I also
am working here," he said to them Then they said to the man, " Then we will come later, brother, let's talk." "O. K. Then come and let's telk," he said to them. "But what are your names?" he said to them. "I am Languna," he said. "And you, that is your name, brother?" he said to the other. "Me, my name is Wawuniri," he said. Then they said, "We will return, brother. Stay here, later we will come." "Do it, brother. Corne back," he said to them.

When they returned he saw them go along the path. The two men entered the jungle over very bad ground and so were lost there. Then he returned saying, "Watever demon is this that has come to seme?" Then he went and looked, saying, "They will have left footprints in the mud". No, he did not see any footprints. "But this is a demon. Perhaps a water demon oame to me here," he said, and having put away his drum he prepared his bed. After preparing his bed he came and ran to Jeberos in the late afternoon.

When he had put his drum away, hanging it, up, and when he had tuoked his pipe into the roof, he came, leaving his mosquito net behind. Having seized just his shot-g m, his shot, a torch and his matches, he ran with them. Thus in the late aftermoon he vas coming by the Poucar region. He went on and on, ruming where the path was open. Coming in this way he reaohed the Supayacu in the late afternoon. From there, when it got dark he lit his torch and came on. He reached Jeberos at night about 9 p.m.

His aunt said, 'What's the matter that you have come, nephew?" "Whatever demon saw me yesterday, aunt? So I came here from there during the night. I came, after I had looked, because of what they said, 'I will come to you at night, let's talk!" he said.

When he slept he seid, "Ho! Why did you retum brother? If you had not returned it would be like this. We would be walking together. Because you disturbed us by this drumming of yours which we heard, yesterday, we went to you unsucoessfully wanting to go and take you!' they said. It was in this way that long ago that man whom they call Ascensio Maka oscaped from the lake.

## TEXT



| 10 |  |
| :---: | :---: |
| 11. | $\begin{array}{lll}\text { nii empi"fa zimpuª.su". } & \text { nu"ajima } \\ \text { not ever } & \text { that which she had not seen having done this }\end{array}$ |
| 12 |  |
| 13 | tanima, iyanuima <br> saying she wanted to give him to drink masatowoklulu?, nima <br> not |
| 14. | iyuwioni. nu?an ipa"linci yunsanime, asek faya? kwa he didink not doing that then rising drine lady |
| 15 |  |
| 16 | napalek alipla ma"ik $\quad$ lupak. nanamalek kwa <br> I am living another in..er.. in a part because of that <br> $I$    |
| 17 |  |
| 18 |  |
| 19 | ipalinci. yuenserecek. iyapanta?lek <br> then I will leave by water <br> I want to return  |
| 20 | finanlu"wokkok. kwi"na fiwilukla nuka"ka. Jiwilu    <br> to my town $I$ from Jeberos I am Jebero |
| 21 |  |
| 22 |  |
| 23 |  |
| 24 |  |
| 25 | aselk kemma napa?masu?malol, here you because of your being here laya, yu9nservatukezen. y left by water for |
| 26 |  |
| 27 |  |
| 28 |  |
| 29 | muðiðokpen, pante?cek, nana Iuwanturimu <br> you milk I will return that <br> wanting in vain  |
| 30 |  |
| 31 | nu"watykunu?ncels, tajima da'untany nana wapunikima  <br> I will go down stream saying entering the |
| 32 | da?unta"an, nu?wañi. u?nifima <br> having gone and entered he went down stream a little way   |
| 33 | nuPwala?ay having gone down stream it went under the water she was seeing |
| 34 | nana wapran. <br> the boat. |

Long ago a boat went towards a woman, a Cocama woman, when she was living on the Marafloa. Then it went and tied up. When the boat tied up, then she was looking. "What sort of boat is this that has oome and tied up? Never has itt tied up here," the woman said. Saying this when she was sitting, a man, an old man with a large forehead, came out towards her. He went towards her and said, "Are you there, ady?" "Come in," said the woman who veas afraid. "Sit down," she said. He sat down. She saw a man whom she had never seen before. Then being afraid and saying, "I will give you some masato," she wanted to give him some masato to drink. He did not want to drink.

Then rising he said, "I came here to you, lady. I do not live in these parts but I am from another part. Because of that I came wanting to ask for your milk, lady. If you would put that into my eye then I would see well. I will leave. I went to return to my town. I am from Jeberos. I am an Jebero old man. If you would put your milk into my eye I would see well. I want to go and see the men who are in my tow, saying, "However is my tom? 'Beoause of that I left by water, because of your boing here, lady. I am Marciel. I am a Jebero. Why are you afraid of me, Jady? " he said.
"No, I am not afraid of you, brother," shesaid. "Then if it is that you do not want to put your milk into my eye, I will return. Wanting that in vain I tied up and came to you here, lady. I will return. I will go down stream," saying, having gone and entored his boat, he went dow stream. When he went down stream a little way she saw the boat go dow under the water.

TEXTI
'Eusebio buys a shot-gun'
Eleodor Ortiz

I nanapu"si"la nawa"piPlima papinku Eusebiokui"ma papinku again they stilil the old man Eusebio the old man
2 Serafinku" pa"ina?, iyasaka?pa?tanni"ma cilenzupa?. Seraphin went wanting to work for someone dow river
3 saka"pa?tukuñini" ma kala ðukər. inkatu"ðukərima they wrent to work three months four months
4 saka"pa?tanni"ma, mapa?tuzina" kutunfanen piwala"¥i"nenima. having worked they bought his shirt and his trousers
5 katu"ta? kutunen katu"ta" pawala? inenenima mapa?tułina". two his shirts two his trousers they bought
6 nanoklima mapa?tuzina? kaperh nana ma'su" kapert tikuna Then they bought poison that good poison Ticuna
7 kaper itomkasu? upoapifakima napi? poison that which they call in a small vessel formerly
8 wokn"su". nanima mapa"tazina". nanima mapa"tarna", that which came that they bought that having bought
9 ali" 1 adaperima the others
watlapinca" ali"ladapezanima were coming leaving behind the others
10 papinlu Eusebioku? woklapinca? ine?. the old man Eusebio they were coming leaving behind
II woklapince?serima, kwi?na łiyo?cek, ku?waperwok kutunerf when they were coming but I I will remain my wite her blouse
 I have not bought yet saying he remained there remaining


## TRANSLATION

Once again the same ones, the old man Eusebio and the old man Saraphin journeyed wanting to work for someone down strear. They went to work for three months. Having worked for four months they bought a shirt and trousers. They bought two shirts and two trousers. Then they bought poison, good poison, that winch they call Ticuma poison, that which came fommerly in a small vessel. They bought that. When they had bought that the others were coming leaving one behind. The others were coming leaving Eusebio behind. When they were coming he remaned, saying, "I will remain. I have not yet bought a blouse for my wife."

Then then he stayed behind and was working a boat arrived. Having arrived the boat tied up there where he was working. When the boat tied up the master for whom he worked took out a container, a shotgun. Having taken out the shotgun at dawn, he said, "How much does this shotgun cost? How much does this shotgun cost, sir?" "It costs seven soles," he said. "Then if you work just one month you will buy this shotgun," he said. He worked again just one month and having worked bought the shotgun. Having bought the shotgun he came back wanting to see his wife in Jeberos.

Jebero favourite sentences may be analysed in a number of other ways besides the analysis presented in chapter four. Some other treatments are outlined below.

## 1. It would be possible to treat all favourite sentences as

referable to one basic syntactic pattern, by combining the two sentence-types set up in chapter four. Thus all favourite sentences would be analysed as comprising a verbal piés and the nominal piece would be regarded as an expansion of this basic structure. This would entail trating the nominal piece as part of the verbal piece, i.e. as one part of the verbal expansion of the verbal piece.

One disadvantage of this treatment would be the added complexity of the verbal piece whioh would consequently embrace every favoupite sentence.

Furthermore it might be argued that the relationship between the nominal of the nominal piece, which functions as subject of the sentence, and the verb of the verbal piece is rather different from the relationship between other nominals in the sentence, and the verb of the verbal piece. The agreement of person and number between the nominal which functions as mucleus of the nominal piece and the verb which functions as nuoleus of the verbal piece, and the potentiality of suffixation of the nominal by -ler, are features which give formal expression to this difference of relationship since neither feature is applicable to other nominals in the sentence.

A factor which correlates with the division of Jebero favourite sentences into two types as against an analysis which would set up only one sentence-type is the external distribution of the sentences. There is a marked tendency for favourite sentences of the syntaotic patterm verbal piece and nominal piece to ocour at the begiming of a conversation or other piece of connected discourse, whereas sentences exhibiting the structure of a single verbal piece seldom occur at such points.

These various features seem to uphold the analysis given in chapter four rather than any treatment of all Jebero favourite sentences in texms of one sentence-type.
2. Another treatment would be to divide Jebero favourito sentencos not
into two pieces, the veribal piece and nominal piece, but into three pieces, the verbal piece, the nominal piece functioning as subject and the nominal piece functioning as object. Thus four seatence-types would be set up, namely, verbal piece sentence, verbal piece and nominal piece (subject) sentence, verbal piece and nominal piece (object) sentence, and verbal piece, nominal piece (subject) and nominal piece (object) senterice. For categaries of subject and object see sections 4424 and 555.

This type of approach to Jebero sentence-types could be extended further so that additional sentence-types would be set up on the basis of a division of the sentence-bype into other pieces in addition to the verbal piece and two types of nominal piece, e.g. adverbial piece, c.f. 5533. These additional primary divisions would serve as the basis for a correspondingly inoreased number of sentence-types.

This treatment was not adopted since in cases such as this where a number of divisions in a syntactic structure are possible and when a correspondingly large number of sentence-types may be set up, it seems useful to treat certain divisions as primary and others as secondary, thus grouping together many of the possible sentence-types. This has been done in the analysis in chapters 4 and 5. Thus, it is not denied that the favourite sentence could be further divided into a number of pieces each with its ow function and structure, in addition
to the verbal piece and nominal piece. These further divisions, however, are not treated as primary breaks in the structuxe serving as the basis for setting up a large number of sentence-types, but are treated at a different level of analysis, not at the sentence and... piece level, but at the olause and phrase level, i.e. the next level. below the piece level.
3. Yet another alternative may be mentioned. It would also be possible to divide the Jebero favourite sentence into two pieces, the verbal piece and the nominal piece, retaining the terms used in the present analysis, but re-defining the nominal piece to refer not to the piece functioning as subject but to the piece functioning as object.

This would seem to raise a question of immediate constituents. In a structure, verb, nounl and nound, when both verb with nounl and verb with nound are substitutable by the verb alone, where should the division into immediate constituents, be made?

In Jebero the intermal stmucture provides little basis for the decision but the faot that though the structuresV N1 and V N2 are both common yet the second, $V \mathrm{~N}_{2}$, is found more widely than the other, seems to favour the analysis given in the main body of the thesis. Furthermore, there is a oertain congruence of pressure towards such a conolusion since extemal distribution as stated in section 1 of this appendix suggests the grouping of the object nominal rather than the subject nominal with the verb.

Appendix II The term 'collocational'

At a number of points in this thesis the term 'collocational' is used. Collocation was first suggested and used as a technical term by J.R. Firth in his article 'Modes of meaning! In that article the collocational level is one of a number of levels of analysis which are set up. The collocational level is established for the description of the way in which words, as individual lexical items as distinct from words as exponents of grammatical categories and classes, keep company with each other. The term is expressly used for the company which words keep with each other. Thus the word 'ass' is said to collocate with 'you silly ...' or with 'don't be an ...' etc.

This level of analysis is kept distinot from both the grammatical and the situational levels. For example, the fact that 'ass' as a noun occurs after adjectives, 'silly' etc., is irrelevant at the collocational level and is treated at the grammatical level.

There wrould seem to be many advantages in this procedure. Certain words are often found together while other combinations are never found though at the grammatical level there are no differences of grarmatical categories to account for this difference found in the sentences. Clearly such differences are not to be treated at the grammatioal level. It is, of course, possible to sub-divide grammatical categories setting? up sub-classes so as to cover sone of these differences by means of

1 See 'Essays and studies' 1951, p. 120. For further details see also $J_{0} R_{0}$ Firth, 'A Synopsis of linguistic theory,' 1930-1955' in 'Studies in linguistic analysis', 1957, pp.7-13.
statements of the type that sub-class A of category $X$ does not occur with sub-class B of category $Y$. But there are limits to the applicability of this approach and it seems clear that many of these mutual limitations cannot be brought within the compass of general rules but must be stated in connection with stylistic and situational factors and are, therefore, best treated not at the grammatical level but at the higher level of collocation.

This is found to be the case at a mumer of points in this thesis. For example, in describing the two oriteria which are used to establish the word classes, nominal and adverb, it is found that in some instances only one or the other criterion can be applied. It would be possible to set up three submolasses of the nominal and three of the adverb on this basis. But this would be pointless since these differences are not based on the grammatical structure of the language, since at the grammatical level it is completely insignificant that certain nominals are not found with suffixes of order eight. This fact is treated at the collocational not the gramatical level.

In this way the term collocation is extended to cover the occurrence of affixes with stems and not just words with other words. For example, at the grammatical level it is found that verb stems may be followed by one or more suffixes which are termed extensors, $\$ 73$. In describing the extensors it is found that certain extensors never occur with certain other extensors and this is treated at the grammatical level and a system of a number of mutually exclusive classes is set up. It is also found in the case of any one extensor that some verb stems are found suffixed by the particular extensor while others are never suffixed by it. It would be possible to divide verb stems into sub-classes on this basis but this would achieve little and lead to a very confused description with a very large number of overlapping sub-classes. Furthermore these sub-classes would not tie in with other parts of the grammatical analysis. Instead of this these differences are assigned to the collocational level of analysis, e.g. a form like piðokwiłitułit 'he builds a house by night', is grammatically acceptable but unacceptable on collocational grounds because the extensor -wizi- 'by night' does not collocate with the stem pidok'to build a house?. This is dictated by the context of the culture concerned in whioh there is no possibility of building a house by night. To insist on setting up submolasses of verb stems on the basis of distribution with mizi- and further subwolasses on the basis of distribution with the other 28 extensors would only serve to confuse the grammatical analysis and submerge under a mass of irrelevant categories those distinctions and categories which do have gramatical significance. this is, therefore, assigned to the collocational level. At this level adequate categories and classes need to be set up. These categories will probably be found to criss-cross the categories of this present grammatical study though any attempt to handle the collocational level lies outside the limits of this thesis. Any such collocational categories would be muoh more fluid than grammatical. oategories because of their relationship to different contexts of situation and different stylistic factors, varying, for example, from speaker to speaker to a very much greater extent than would grammatical categories.

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[^0]:    1 'Handbook of South Anerican Indians' Ed. J.H. Stewerd Vol. 3 Washingtion 1949 pp. 605-614.
    2 While the oonnection between the ather three commonly found names for this tribe is obvious, this nome at first may seem obscure. However, it was found in the field that Jebero speakers always refer to themselves as $\int$ iwilu people. Furthermore when acoount is taken of phonetic changes in Spanish since the I7th century there would appear to be some conneotion between this tribal name andi the names given the tribe by the Spanish speaking missionaxies and since perm potonted in the literature.
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[^1]:    7. The xeferences given for the examples oited throughout this thesis refer oither to the texts given in chapter eleven or to other members of the collection of texts obtained in the field. The former are cited by the text letter followed by theline number, the latter by three nunbers standing for the informant, page and line respectively.
[^2]:    1 see Appendix II 'The term collocational'

