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Introduction

This volume presents descriptions of the verb systems of five New Guinea languages. These representatives of four different language families are spoken in separated areas of the island. In each of the languages, however, the verb appears to be a focal point of structure. Within the verb are expressed the relationships of actor to action to object, as well as the time, modal, or aspectual relationships involved. The verb in each case is nuclear and obligatory to clause units. In addition, within the verb the time and subject relationships between clauses are expressed, making description of the verb basic to description of the sentence.

Such similarities of structure from language to language, as well as others which will be noted in the papers, suggest the underlying genetic relationship of these languages (postulated by Wurm [1961], though his work did not include Wantoat).

These papers were prepared in connection with a linguistic workshop held in New Guinea under the direction of Kenneth L. Pike. Preliminary editing of them was done by Dr. Harland Kerr and Alan Pence.

The following languages have a sketch presented in this volume.

Awa is an Eastern Highlands language, spoken by some 1,500 people living north and south of the Lamari River,

Kainantu Subdistrict. Awa belongs to the Kainantu group of languages including Tairora, Gadsup, Auyana, and Awa as the major representatives. A survey of Awa noun suffixes (Loving, 1962) is the only previously published descriptive work on Awa.

Bena-bena is a language of the Gahuku subfamily of the Gende-Siane-Gahuku-Kamano-Fore language family (Wurm, 1960, 1961, 1961) in the Eastern Highlands District. It is spoken by an estimated 12,000 people, who live, for the greater part, east of the township of Goroka. A comparative phonology of four of the languages of the family (including Bena-bena) has been published (Young, 1962).

Gadsup is spoken by about 7,000 people living in the Kainantu area of the Eastern Highlands District. The language is related to others in the area including Tairora, Auyana, and Awa. Descriptive papers on other members of the family (Awa, Tairora, and Usarufa) appeared in an Oceania Linguistic Monograph (1962) along with a study of Gadsup noun affixes (Frantz, 1962). Gadsup is divided into about three major dialects.

Kewa is spoken in the Southern Highlands District of the Territory of Papua and New Guinea. It is described by Wurm (1960), (1961), and (1962) as being a member of the Enga-Huli-Pole-Wiru language family (referred to by him as Kewa-Pi and Kewapi). In the family there are 253,000 speakers divided into elevan languages. There are no published linguistic materials for other members of this family (other than the surveys of Wurm, referred to) although extensive analytical work has been carried out in several of them, viz., in Pole (Unevangelized Fields Mission); Mendi (UFM, Methodist Mission); Enga (Lutheran Mission — Missouri Synod); Huli (UFM); Kyaka (Baptist Mission); and Wiru (SIL). Kewa itself seems to be divided into three main dialects comprising at least 25,000 speakers. An analysis of Kewa phonology has been published (Franklin, 1962).

The Wantoat language is spoken by about 5,000 persons

who live in the Wantoat Valley, a headwaters region of the Leron River, in the Morobe District. The language appears to be closely related to other non-Melanesian language groups in the Huon Peninsula; however no accurate classification has yet been made. There is no previously published work on the Wantoat language.

The authors are all members of the Summer Institute of Linguistics. Those working permanently in New Guinea under the Institute field program are: Donald R. Davis of Kansas was educated at Wheaton College (B.A.) and Central Baptist Seminary (B.D., Th.M.). He and his family joined the Institute in 1956 and began field work in New Guinea in 1958.

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All the above SIL field workers received initial linguistic training at the summer institutes conducted by SIL.

Alan Pence

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WANTOAT VERB STEM CLASSES AND AFFIXATION

Donald Davis

0. Introduction. Several criteria are employed in determining verb stem classes in Wantoat.[1] Three major classes are determined by the occurrence of the allomorphs

[1] Wantoat is the language spoken in the Wantoat Census Division (1960 population, 5,670), Morobe District, Territory of New Guinea.

The data were collected on field trips between August, 1958, and May, 1962. A number of informants supplied the data, but Dapdek and

of the second singular imperative suffix -ng ∞ -t ∞ -p.[2] Subclasses of each major class are determined by the kinds of stem allomorphs (e.g., vowel final and consonant final) which occur with certain other suffixes.

Due to the limitation of data some stem subclasses are represented by only one member in this paper. However, it is expected that further investigation will reveal a larger number of members in each stem subclass.

1. Definition of verb in Wantoat. Verbs in Wantoat are defined as Class 2 stems plus Class <k> affixes,[3] and occur as (H)ead word in predicate phrases, and in the (P)redicate slot in sentences and clauses.

Samakapa, two young men from Gwabogwak village, have been the principal informants for checking the data used in this paper.

This paper was written during the 1962 SIL Workshop in New Guinea. The author gratefully acknowledges the helpful comments on the manuscript by Dr. K. L. Pike and Elmer Wolfenden.

[2] The Wantoat consonants are two series of stops, a series of nasals, two fricatives, and two semivowels. The voiceless stops (p, t, k, kw) are aspirated except in final position. kw is a labialized velar stop. The voiced stops (b, d, g, gw) are prenasalized. The nasals are m, n, ng (ŋ), and ngw ($ŋ^w$). The fricatives (s, z) are grooved, and the voiced one is prenasalized. The semivowels are w and y. Wantoat has seven vowels: i, e, æ, a, ä, o, and u. Only /i/ and /e/ have more than one allophone. The allophones of /i/ are: [ɪ] between /s/ and a velar phoneme, [i] elsewhere. The allophones of /e/ are: [ɛ] following /y/ or /z/, [e] elsewhere. The vowel /ä/ is of mid open central quality. The vowel /æ/ is phonetically longer than the other vowels, and in most occurrences glides from a low close front quality to a mid open central quality [æ^ə].

[3] Those affixes which occur with verb stems are designated Class <k>. Those involved in the determination of verb stem classes are as follows:

1. The prefix <na-> 'person object-referent'
2. Monoallomorphic n initial suffixes:
   -nong 'second plural future imperative'
   -nim 'first plural future'

2. Verb stem classes. Verb stems fall into three major classes determined by the occurrence of the allomorphs of the second person singular immediate imperative suffix -ng ∞ -t ∞ -p.

Class A stems occur with the -ng allomorph. Examples follow with the stems ya- 'talk', ku- 'go' and kwai- 'dig':

yang 'talk!' or 'say [it]!'

kung 'go!'

kwaing 'dig!'

Class B stems occur with the -t allomorph. Examples follow with the stems mu- 'throw', ukgi- 'extract' and pu- 'break':

mut 'throw [it]!'

ukgit 'extract [it]!'

put 'break [it]!'

-ning 'second or third plural future'
-na 'first plural hortatory'
-nangä 'subjunctive of ability'
-nage 'subjunctive of desire'
-nä- 'subjunctive of doubt'

3. Polyallomorphic suffixes. Each stem subclass takes one allomorph of each set. Some subclasses take only the basic allomorphs, given first in the examples below. Other subclasses take different combinations of basic and nonbasic allomorphs of these suffixes.

The first four examples are representative of lists of suffixes having the same type of allomorphic changes, e.g., initial y to s:

yo ∞ so 'singular future imperative'
son ∞ zon 'dual future imperative'
ta ∞ da 'first dual hortatory'
-wit ∞ -pit ∞ -bit 'first singular future'
-ku ∞ -bu ∞ -gu 'past'
-un ∞ -bun ∞ -gun 'dual immediate imperative'
-ut ∞ -but ∞ -gut 'plural immediate imperative'

4. The second singular imperative suffix -ng ∞ -t ∞ -p has no basic allomorph as each allomorph determines one of three major stem classes.

Class C stems occur with the -p allomorph. Examples follow with the stems ap- 'come', nata- 'listen', and -du- 'see':

ap[4] 'come!'

natap 'listen!'

nadup[5] 'see me!'

2.1. Class A. Class A stems, with the -ng allomorph, are divided into two subclasses. Subclass A.1. stems have no consonant final allomorphs, but Subclass A.2. stems have both vowel final and consonant final allomorphs.[6]

2.11. Subclass A.1. stems are divided into two kinds according to the number of allomorphs which occur. Subclass A.1.a. stems have only one allomorph, while A.1.b. stems have two.

2.111. Subclass A.1.a. stems are further divided into two types. One type occurs with an obligatory personal object-referent prefix. The other type never occurs with a prefix of this kind.

(1) Those Subclass A.1.a. stems which occur with obligatory personal object-referent prefixes are transitive.

[4] ap- 'come' + -p 'imperative' > ap 'come!'

[5] In this example this stem has a bound person object-referent prefix na- 'first person singular object-referent'.

[6] Vowel final stem allomorphs occur with any monoallomorphic suffix, but with only the basic allomorph of polyallomorphic suffixes. Consonant final stem allomorphs may occur only with n initial monoallomorphic suffixes and nonbasic allomorphs of polyallomorphic suffixes. Stem subclasses are determined by the constellation of suffixual allomorphs which occurs with the stem allomorphs.

An example follows with the stem -mu- 'give to' and the obligatory personal referent prefix na- 'me'. The actor is indicated by the third person singular completive suffix -k.

namuk 'he gave [it] to me'

(2) Those Subclass A.1.a. stems which never occur with person prefixes are of two kinds: transitive and intransitive. In the following example the intransitive stem ku- 'go' occurs with the third person singular actor suffix -k and with a subject ada 'he', but without an object:

ada kuk 'he went'

The transitive stem yapu- 'close', in the following example, occurs with an optional object. If no object is expressed an indefinite object is understood.

yapuk 'he closed [it]'

gwobok yapuk 'he closed [the] door'

2.112. Subclass A.1.b. stems have two allomorphs and are divided into two subtypes according to the nature of one of the allomorphs, i.e., suppletive or grammatically conditioned.

(1) The allomorphs of Subclass A.1.b. stem täsi- ∞ päsi- 'do, make, work' are grammatically conditioned by a change in the number of the object from singular to plural.[7] This change in number is illustrated as follows:

[7] The initial consonants of the allomorphs of the stem täsi- ∞ päsi- 'do, make, work' are not considered prefixes because this feature is limited to only two verb roots in the language, and the residue is meaningless.

täsik 'he made [it]'

päsik 'he made [them]'

(2) The allomorph -ni- of Subclass A.1.b. stem ya- ∞ -ni- 'talk, say' is a suppletive transitive allomorph which occurs with obligatory personal object-referent prefixes. The allomorph ya- occurs with an optional object indicating a quotation. Illustrations follow:

ngai yak 'thus he said [he said that]'

yak 'he talked'

nanik 'he talked to me'

ngai nanik 'thus he talked to me [he said that to me]'

2.12. Subclass A.2. stems, with consonant final and vowel final allomorphs, are divided into five lower level subclasses according to the number and kinds of allomorphs which occur.

2.121. Subclass A.2.a. stems have two allomorphs one of which is consonant final. Two types of these stems are distinguished by the list of suffixes which occurs with each of the two stem allomorphs.

(1) The vowel final allomorph of subtype (1) stems occurs with all monoallomorphic suffixes and with the basic allomorph[8] of all polyallomorphic suffixes except those which have an initial w and those with an initial y.

In the first four examples below, the stem allomorph na- 'eat' occurs with monoallomorphic suffixes, and in the last

[8] Basic allomorphs of polyallomorphic suffixes occur with vowel final stem allomorphs.

four examples the same stem allomorph occurs with the basic allomorph of certain polyallomorphic suffixes:

na-nong 'you all must eat!'

na-mäk 'we two ate'

na-yäk 'you ate'

na-sikang 'having eaten'

na-son 'you two must eat!'

na-ta 'let us two eat'

na-kut 'he ate'

na-un 'you two must eat!' (immediate imperative)

The stem allomorph näp- 'eat' occurs only with those polyallomorphic suffixes which have w initial or y initial basic allomorphs. The morphophonemic changes which occur at the morpheme boundaries are as follows:

p + y > ps:[9] näp + yo > näpso 'you must eat [it]!'

p + w > pp > p:[10] näp + wit > näpit 'I will eat [it]'

(2) The vowel final allomorph of subtype (2) stems occurs with all monoallomorphic suffixes except those which have an

[9] Twenty types of morphophonemic changes are involved in the classification of verb stems. Each example shows the stem final consonant plus the suffix initial consonant or vowel.

[10] It is assumed that assimilation occurs first (p + w > pp), and that reduction follows (pp > p) on the basis of the behavior of the morphophonemic changes as shown in p + y > ps, p + s > pz, p + t > pd and p + k > pb.

initial n. The stem allomorph ipmä- 'cut', in the following examples, occurs with monoallomorphic suffixes -mäng 'first person plural actor completive' and -yäk 'second person singular actor completive':

ipmämäng 'we all cut [the grass]'

ipmäyäk 'you cut [the grass]'

The stem allomorph ip- 'cut' occurs with all polyallomorphic suffixes, and with all n initial monoallomorphic suffixes. The morphophonemic changes which occur are summarized as follows:

p + y > ps: ip + yo > ipso 'you must cut [the grass]!'

p + w > pp > p: ip + wit > ipit 'I will cut [the grass]'

p + s > pz: ip + son > ipzon[11] 'you two must cut [the grass]!'

p + t > pd: ip + ta > ipda 'let us two cut [the grass]!'

p + k > pb: ip + kut > ipbut 'he cut [the grass]'

p + u > pbu: ip + un > ipbun 'you two must cut [the grass]!' (immediate imperative)

p + n > pn: ip + nim > ipnim 'we all will cut [the grass]'

The first and second sets of the allomorphs of the Subclass A.2.a. stem (zipmä- ~ zip-) ∞ (-sipmä- ~ -sip-)

[11] All voiced stops and the fricative /z/ are prenasalized in Wantoat, but the prenasalization is not written in the practical orthography.

'massacre, strike many objects' are grammatically conditioned by a change in the person of the object from third plural to first or second plural.[12] An obligatory person object-referent prefix indicates whether the object person is first or second. In the following illustrations the first example of each set shows the vowel final stem allomorph while the second example shows the consonant final stem allomorph. The first set shows the allomorphs which occur with a third person plural free object. The second and third sets show the grammatically conditioned allomorph which occurs with first and second person object-referent prefixes respectively.

zipmäk 'he struck [them]'

zipnong 'you all must strike [them]!'

nisipmäk 'he struck us'

nisipnong 'you all must strike us'

dasipmäk 'he struck you [two/all]'

dasipbing 'they struck you [two/all]'

2.122. Subclass A.2.b. is composed of the two stems wamä- ~ wam- ~ wap- 'wrap' and kungä- ~ kum- ~kup- 'die'. The vowel final allomorph of both these stems occurs with all monoallomorphic suffixes except those with an initial n. Examples follow:

wamäyäk 'you wrapped [it]'

wamäk 'he wrapped [it]'

[12] This language does not distinguish between dual and plural in the nonsingular person object-referent forms.

kungäyäk 'you died'

kungäk 'he died'

The p final allomorph occurs with all w initial and y initial polyallomorphic suffixes. The morphophonemic changes are depicted as follows:

p + y > ps: wap + yo > wapso 'you must wrap [it]'

kup + yo > kupso 'you must die!'

p + w > pp > p: wap + wit > wapit 'I will wrap [it]'

kup + wit > kupit 'I will die'

The m final allomorph occurs with n initial monoallomorphic suffixes, and with the remaining polyallomorphic suffixes as shown in the following illustrations:

m + n > mn: wam + nim > wamnim 'we all will wrap [it]'

kum + nim > kumnim 'we all will die'

m + s > mz: wam + son > wamzon 'you two must wrap [it]!'

kum + son > kumzon 'you two must die!'

m + t > md: wam + ta > wamda 'let us two wrap [it]'

kum + ta > kumda 'let us two die!'

m + k > b:[13] wam- + -kut > wabut 'he wrapped [it]'

kum- + -kut > kubut 'he died'

m + u > bu: wam- + -un > wabun 'you two must wrap [it]'

kum- + -un > kubun 'you two must die'

2.123. Subclass A.2.c. consists of the stem (tämu- ∞ pämu-) ∞ (tämum- ∞ pämum-) ∞ (tämun- ∞ pämun-) 'put into'. The t initial and p initial allomorphs of each set are grammatically conditioned by whether the number of the object-referent person is singular or plural. Examples follow with the set of vowel final allomorphs tämu- ∞ pämu-:

tämuk 'he put [it] into [something]'

pämuk 'he put [them] into [something]'

The vowel final allomorphs, tämu- ∞ pämu-, occur with all monoallomorphic suffixes, and with those polyallomorphic suffixes whose basic allomorphs are t initial, k initial or vowel initial. Examples follow:

tämunong 'you all must put [it] into [something]!'

pämunong 'you all must put [them] into [something]!'

tämukut 'he put [it] into [something]!'

pämukut 'he put [them] into [something]!'

[13] This change may be symbolized: [m + k > $m^{m}b$ > ^{m}b] > /b/. The phoneme /^{m}b/ is written simply as b in the practical orthography.

The m final allomorphs occur only with those poly-allomorphic suffixes whose basic allomorphs are w initial or y initial. Examples follow showing the morphophonemic changes:

m + y > ms: tämum- + -yo > tämumso 'you must put [it] in'

pämum- + -yo > pämumso 'you must put [them] in'

m + w > b: tämum- + -wit > tämubit 'I will put [it] in'

pämum- + -wit > pämubit 'I will put [them] in'

The n final allomorphs occur only with s initial poly-allomorphic suffixes, as in the following examples:

n + s > z:[14] tämun- + -son > tämuzon 'you two must put [it] in!'

pämun- + -son > pämuzon 'you two must put [them] in!'

tämun- + -sim > tämuzim 'we two will put [it] in'

pämun- + -sim > pämuzim 'we two will put [them] in'

2.124. Subclass A.2.d. consists of the two stems -wa- ~ -wam- ~ -wan- ~ -wang- 'chase' and -pma- ~ -pmam- ~ -pman- ~ -pmang- 'take'. Both of these stems occur with obligatory personal object-referent prefixes.

[14] This change may be symbolized: [n + s > $n^{n}z$ > ^{n}z] > /z/.

The vowel final allomorph of these stems occurs with all monoallomorphic suffixes, and in the following examples with the first person singular object-referent prefix na-:

nawak 'he chased me'

nawayäk 'you chased me'

näpmak[15] 'he took me'

näpmayäk 'you took me'

The m final allomorph occurs with those polyallomorphic suffixes which have y initial or w initial basic allomorphs, as in the following illustrations:

m + y > ms: nawam + yo > nawamso 'you must chase me'

m + w > b: nawam + wik > nawabik 'he will chase me'

The n final allomorph occurs with s initial and t initial polyallomorphic suffixes. Examples follow:

n + s > z: nawan + son > nawazon 'you two must chase me'

n + t > d: täwan + ta > täwada[16] 'let us two chase him'

[15] The stem allomorphs na- ~ nä- are phonologically conditioned by stress. The former is stressed; the latter is unstressed.

[16] Because of semantic restrictions this example employs the allomorph tä- of the third person singular object-referent prefix i- ~ tä- ~ ø. Only one other stem occurs with this particular allomorph of this prefix.

The ng final allomorph occurs with k initial and vowel initial polyallomorphic suffixes. Examples follow:

ng + k > g:[17] nawang + kut > nawagut 'he chased me'

ng + u > gu: nawang + un > nawagun 'you two must chase me' (immediate future)

2.125. Subclass A.2.e. consists of the stem pima- ~ pimam- ~ piman- ~ pimap- ~ pimang- 'fall'.

The allomorph pima- occurs with all monoallomorphic suffixes and with t initial polyallomorphic suffixes. Examples follow:

pimanim 'we all will fall'

pimasikang 'having fallen'

pimata 'let us two fall'

The allomorph pimam- occurs with those polyallomorphic suffixes whose basic allomorph is y initial. Examples follow:

m + y > ms: pimam + yo > pimamso 'you must fall!'

pimam + yät > pimamsät 'I might fall'

The allomorph piman- occurs only with s initial polyallomorphic suffixes, as in the following illustrations:

[17] This change may be symbolized: [ŋ + k > ŋ^{0}g > ^{0}g] > /g/.

n + s > z: piman + son > pimazon 'you two must fall!'

piman + sim > pimazim 'we two will fall'

The allomorph pimap- occurs only with w initial polyallomorphic suffixes. Examples follow:

p + w > pp > p: pimap + wit > pimapit 'I will fall'

pimap + wän > pimapän 'when he fell'

The allomorph pimang- occurs with k initial and vowel initial polyallomorphic suffixes. Illustrations follow:

ng + k > g: pimang + kut > pimagut 'he fell'

ng + u > gu: pimang + un > pimagun 'you two must fall!'

2.2. Class B. All Class B stems occur with the -t allomorph of the singular imperative suffix -ng ∞ -t ∞ -p, and have two allomorphs. A vowel final allomorph occurs with monoallomorphic suffixes (except n initial ones), and a t final allomorph occurs with n initial monoallomorphic suffixes and with those polyallomorphic suffixes having an s initial or a t initial basic allomorph. Additional suffix allomorphs occur with certain Class B stems. Examples follow with the stem yu- ~ yut- 'be, remain'. The first set shows the allomorph yu- with some monoallomorphic suffixes. The second set depicts the morphophonemic changes which take

place when the allomorph yut- occurs with certain poly-allomorphic suffixes:

yukut 'he remained'

yuyäk 'you remained'

t + s > tz: yut + son > yutzon 'you two must remain!'

t + t > td: yut + ta > yutda 'let us two remain'

t + n > tn: yut + nim > yutnim 'we all will remain'

Class B stems fall into three subclasses. Subclass B.1. stems have one vowel final and one t final allomorph. Subclass B.2. stems have also a k final and an m final allomorph. And Subclass B.3. stems have vowel final, t final, and k final allomorphs.

2.21. Subclass B.1. consists of the stem yu- ~ yut- 'be, remain', as illustrated above in 2.2. The suffixes which occur with the k final allomorph of Subclass B.2. and B.3. stems lose their initial consonant when occurring with this stem. Examples follow with the 'continuative' suffix (-ga- ~ -a-) ∞ (-ka- ~ -a-) followed by a singular or plural actor suffix:

yu + ga-k > yuak 'he remains'

yu + ka-mäng > yuamäng 'we all remain'

2.22. Subclass B.2. consists of the stem mu- ~ mut- ~ mum- ~ muk- 'throw [it]' and compound stems having this stem as one of its members, e.g., aimu- ~ aimut- ~ aimum- ~ aimuk- 'scrape [with the teeth]'.

The allomorph mu- occurs with all monoallomorphic suffixes (except n initial ones), and with polyallomorphic suffixes having k initial or vowel initial basic allomorphs. Examples follow:

muk 'he threw [it]'

muyäk 'you threw [it]'

mukum 'I threw [it]'

muun 'you two must throw [it]!'

The allomorph mut- occurs with n initial, s initial, and t initial suffixes as described in 2.2. Examples follow:

mut + son > mutzon 'you two must throw [it]!'

mut + ta > mutda 'let us two throw [it]'

mut + nim > mutnim 'we all will throw [it]'

The allomorph mum- occurs only with polyallomorphic suffixes having y initial or w initial basic allomorphs. Illustrations follow:

m + y > ms: mum + yo > mumso 'you must throw [it]!'

m + w > b: mum + wit > mubit 'I will throw [it]!'

The allomorph muk- occurs only with the suffix (-ga- ~ -a-) ∞ (-ka- ~ -a-) 'continuative'. Examples follow with the third person singular suffix -k, and the second or third person plural completive suffix -ing:

k + g > kg: muk + gak > mukgak 'he is throwing [it]'

k + k > k: muk + kaing > mukaing 'you/they are throwing [it]'

2.23. Subclass B.3. stems (with vowel final, t final, and k final allomorphs) fall into two subtypes. One type occurs with obligatory personal object-referent prefixes. The other type never occurs with a prefix of this kind.

2.231. Subclass B.3.a. stems never occur with person object-referent prefixes. Illustrations follow with the stem pu- ~ put- ~ puk- 'break [it]':

pukut 'he broke [it]'

puun 'you two must break [it]!'

putzon 'you two [future] must break [it]!'

putda 'let us two break [it]'

putnong 'you all must break [it]'

pukgak 'he breaks [it]'

pukamäng 'we all break [it]'

2.232. Subclass B.3.b. stems, with obligatory person object-referent prefixes, are of two kinds: those with grammatically conditioned allomorphs, and those whose allomorphs are not grammatically conditioned.

(1) The allomorphs of the stem -nidämu- ∞ -nidämut- ∞ -nidämuk- 'teach' are not grammatically conditioned. Examples follow with the first person singular object-referent prefix na-:

nanidämuk 'he taught me'

nanidämuyäk 'you taught me'

nanidämutnong 'you all must teach me!'

nanidämukgak 'he is teaching me'

(2) The sets of allomorphs of the stem (-nu- ~ -nut- ~ -nuk-) ∞ (-gu- ~ -gut- ~ -guk-) ∞ (-ngu- ~ -ngut- ~ -nguk-) 'strike, kill' are grammatically conditioned by a change in the person of the singular object. The person of the object is expressed by an obligatory prefix. The n initial allomorph occurs with the first person singular object prefix na-:

nanuwik 'he will strike me'

nanutzän 'will you two strike me?'

nanukgak 'he is striking me'

The g initial stem allomorph occurs with the second singular object prefix ga-:

gaguwik 'he will strike you'

gagutzim 'we two will strike you'

gagukgak 'he is striking you'

The ng initial allomorph occurs with the third singular object prefix tä-:

tänguwit 'I will strike him'

tängutzim 'we two will strike him'

tängukgat 'I am striking him'

2.3. Class C. Class C stems take the -p allomorph of the imperative suffix -ng ∞ -t ∞ -p, and have two allo-

morphs. A consonant final allomorph occurs with n initial monoallomorphic suffixes, and with a nonbasic allomorph of all polyallomorphic suffixes. A vowel final allomorph occurs with all other suffixes. Subclasses are determined by two different ways of deriving the consonant final allomorph from the basic vowel final form. The first four examples show the allomorph ko-, and the remainder show the allomorph kop- of the stem ko- ~ kop- 'go up'. Morphophonemic changes are summarized in the second set.

kogak 'he is going up'

kokamäng 'we all are going up'

kot 'I went up'

kosikang 'having gone up'

p + n > pn: kop + nim > kopnim 'we all will go up'

p + s > pz: kop + sim > kopzim 'we two will go up'

p + y > ps: kop + yo > kopso 'you must go up!'

p + w > pp > p: kop + wit > kopit 'I will go up'

p + t > pd: kop + ta > kopda 'let us two go up'

p + k > pb: kop + kut > kopbut 'he went up'

p + u > pbu: kop + un > kopbun 'you two must go up!'

Subclass C.1. stems derive the consonant final allomorph by the addition of a consonant to the vowal final form. They fall into two subtypes. One occurs with obligatory personal object-referent prefixes. The other type never occurs with a prefix of this kind.

2.31. Subclass C.1.a. stems never occur with person object-referent prefixes. The stem ko- ~ kop- 'go up', illustrated in 2.3, is a member of this subclass. In Subclass C.1.a. the stem nata- ~ natap- 'listen' differs from the others in that the allomorph nata- occurs with the allomorph -a of the 'continuative' suffixes described in 2.21. Examples follow:

nata- + ga-k > nataak 'he is listening'

nata- + ka-mäng > nataamäng 'we all are listening'

Subclass C.1.b. consists of the stem -du- ~ -dup- 'see' which occurs with obligatory person object-referent prefixes. Examples follow with the prefix na- 'first person singular object':

naduk 'he saw me'

nadupsäk 'he might see me'

2.32. Subclass C.2. stems derive the consonant final allomorph by the loss of the final vowel from the vowel final form. Examples follow with the stem apu- ~ ap- 'come':

apuk 'he came'

apugak 'he is coming'

apusikang 'having come'

apumäng 'we all came'

p + n > pn: ap + nim > apnim 'we all will come'

p + s > pz: ap + sim > apzim 'we two will come'

p + k > pb: ap + kut > apbut 'he came'

3. Verb affix classes. These affixes fall into three groups, (a) bound persons (benefactive and object-referent), (b) those which indicate a variety of aspects and modes, and (c) sets of affixes which indicate relationship between succeeding clauses in sentences or discourse.

Some of the affixes in group (b) occur in paradigmatic sets with the actor person as the variable factor.

Many of these affixes consist of more than one allomorph. The allomorphs of such affixes which occur in paradigmatic sets are morphologically determined by stem subclassification. (See 2.)

Affix classes are based on order of occurrence from the stem. There are three classes of prefixes numbered 10, 20, and 30, and seven orders of suffixes numbered 100 through 700. Each affix is given a unit number within its particular class.

3.1. Prefixes. There are three orders of prefixes designated as Classes 10 (first order), 20 (second order), and 30 (third order). All members of a given class are mutually exclusive in occurrence. The only co-occurrence restriction among prefixes is that the prefix bä- 'problematic' (21) never occurs without one member of Class 30. There are co-occurrence restrictions between certain prefixes and suffixes.

Chart A is a prefix inventory showing relative order of occurrence from the stem, and co-occurrence restrictions. Braces { } denote an allomorphic set, and the form enclosed is a representative of that set. The symbol < > denotes a paradigmatic set with actor person as the variable factor. A hyphen denotes a bound form. The chart is read from left to right following the lines. Any affixes which are connected by a line may co-occur, but only in their stated order. S_1 represents a small class of verb stems which always occur with Class 10 prefixes. S_2 represents all other verb stems.

The asterisk indicates that no form may begin with bä- 'problematic'.

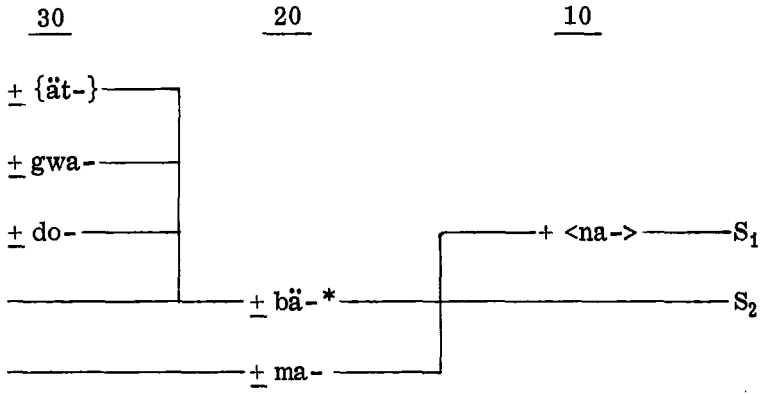

CHART A
Prefix Inventory, Ordering and Co-occurrence Restrictions

3.11. Class 10 consists of person object-referent prefixes which occur only with a small class of verb stems, S_1 (e.g., 'see', 'give', 'strike', 'chase', 'hold', 'teach', 'curse', 'speak to', etc.). The two tagmas of object and referent person are manifested by a single set of prefixes which is represented in Chart A by the first person singular prefix <na->.

3.111. There are two first person object-referent prefixes: singular, na- ∞ nä-; and dual/plural, ni-, as in the following illustrations with the stems -ni- 'talk to' and -du- 'see':

na-ni-k[18] '[to]-me + talk + he-compl' (he talked to me)

[18] The third person singular actor suffix -k also indicates completed action.

ni-ni-k '[to]-us-dl/pl + talk + he-compl' (he talked to us)

na-du-k 'me + see + he-compl' (he saw me)

ni-du-k 'us-dl/pl + see + he-compl' (he saw us)

3.112. There are two second person object-referent prefixes: singular, ga-; and dual/plural, da-. The following illustrations employ the same two verb stems:

ga-ni-k '[to]-you + talk + he-compl' (he talked to you)

da-ni-k '[to]-you-dl/pl + talk + he-compl' (he talked to you [pl])

ga-du-k 'you + see + he-compl' (he saw you)

da-du-k 'you-dl/pl + see + he-compl' (he saw you [pl])

3.113. There are two third person object-referent prefixes: singular, ta- ∞ i-; and dual/plural, ye-. The ta- allomorph of the singular prefix occurs only with the two verb stems -wa- 'chase' and -ngu- 'strike [one person/thing]'. Examples follow:

ta-wa-k 'him + chase + he-compl' (he chased him)

ta-ngu-k 'him + strike + he-compl' (he struck him)

In all other cases where this morpheme occurs the i-

allomorph is used.[19] Examples follow with the stems -ni- 'talk to' and -mu- 'give':

i-ni-k '[to]-him + talk + he-compl' (he talked to him)

i-mu-k '[to]-him + give + he-compl' (he gave to him)

The third person dual/plural object-referent person prefix, ye-, is illustrated with verb stems -ni- 'talk to' and mu- 'give':

ye-ni-k '[to]-them-dl/pl + talk + he-compl' (he talked to them)

ye-mu-k '[to]-them-dl/pl + give + he-compl' (he gave to them)

3.12. Class 20 consists of the prefixes bä- 'problematic' (21), and ma- 'prohibitive' (22) which occur either adjacent to the stem or preceding an object-referent person prefix (10).

3.121. The 'prohibitive' prefix, ma-, occurs only (and optionally) when the stem is suffixed by Subclass 507.2 suffixes <-wim> 'immediate future interrogative', and is mutually exclusive with prefix 33, do- 'negative'. (See Chart A.) Examples follow with the stem ku- 'go':

ma-ku-wim 'prohib + go + you-sing' (you must not go!)

[19] There is a third way that third singular object-referent person is signalled, i.e., by alternation of stem allomorphs. That is, some of those verbs which occur with object-referent person prefixes have a second stem allomorph which occurs only when the object-referent person is third person.

ma-ku-wät 'prohib + go + you-dl/pl' (you must not go!)

3.122. The prefix bä- 'problematic' must be preceded by a member of Class 30. It is optional and occurs either adjacent to the stem or preceding a Class 10 prefix 'object-referent person'. Examples follow with the stem ku- 'go' and each of the Class 30 prefixes:

äp-bä-ku-k 'assert + problem + go + he-compl' (he has probably gone)

gwa-bä-ku-k 'compl + problem + go + he-compl' (he has probably already gone)

do-bä-ku-k 'neg + problem + go + he-compl' (he probably hasn't gone)

3.13. Of the three Class 30 prefixes, {ät-} indicates assertive mode, do- indicates negative mode, and gwa- indicates completive aspect. Illustrations have been given above.

3.131. Prefix 31, {ät-} 'assertive', has five allomorphs; ät- ~ äp- ~ äk- ~ äs- ~ ä-, which are phonologically defined as follows:

ät- occurs before voiced alveolar nasal or stop.

ät-na-k 'assert + eat + he-compl' (he ate)

ät-da-du-k 'assert + you-dl/pl + see + he-compl' (he saw you [dl/pl])

äp- occurs before voiced bilabial nasal or stop.

äp-mu-k 'assert + throw + he-compl'
(he threw [it])

äp-bäkngä-k 'assert + like + he-compl'
(he liked [it])

äk- occurs before voiced velar nasal or stop.

äk-ngwatu-k 'assert + vomit + he-compl'
(he vomited)

äk-ga-du-k 'assert + you + see + he-compl'
(he saw you)

ä- occurs before any other consonant.

ä-su-k 'assert + spit + he-compl' (he spit)

ä-täsi-k 'assert + work + he-compl' (he worked)

ä-pe-k 'assert + put-pl obj + he-compl' (he put them)

ä-ku-k 'assert + go + he-compl' (he went)

äs- occurs before a vowel.

äs-i-ni-k 'assert + [to]-him + talk + he-compl'
(he talked to him)

äs-aa-k 'assert + bear + he-compl' (he bore)

3.132. Prefix 32, gwa- 'completive', may co-occur with any suffix except 402 <-yät> 'phobic' (denoting apprehension) and 507.2 <-wim> 'immediate future interrogative'. Examples follow with the stems ku- 'go' and -ni- 'talk to':

gwa-ku-k 'compl + go + he-compl' (he has already gone)

gwa-na-ni-k 'compl + me + talk + he-compl' (he has already told me)

3.133. Prefix 33, do- 'negative', may co-occur with any suffix except 101 {-t}, 'singular immediate imperative', 402 <-yät> 'phobic', and 506 <-yo> 'future imperative'. Illustrations follow with the stems ku- 'go' and -ni- 'talk to':

do-ku-k 'neg + go + he-compl' (he didn't go)

do-na-ni-k 'neg + me + talk + he-compl' (he didn't tell me)

3.2. Suffixes. There are seven orders of suffixes designated as Classes 100 through 700 according to their relative order of occurrence from the stem. Chart B is an inventory of these suffixes showing their orders and co-occurrence restrictions. The notations used in Chart A also apply in Chart B with the addition of << >> to denote two semantically related paradigmatic sets. In the case of <-keng>, the symbol < > indicates two semantically related morphemes rather than a paradigmatic set. This chart is read along the lines from left to right only, beginning with S (stem). Optional suffixes are indicated by the possibility of by-passing them enroute to the right-hand side of the page. Suffixes which are obligatory to each other or to the stem are indicated by the absence of a by-pass. Three of the suffixes are enclosed in parentheses to indicate that the third order suffix -nage (302) is mutually exclusive with both of the fifth order suffixes <-keng> (501) and -nangä (509).

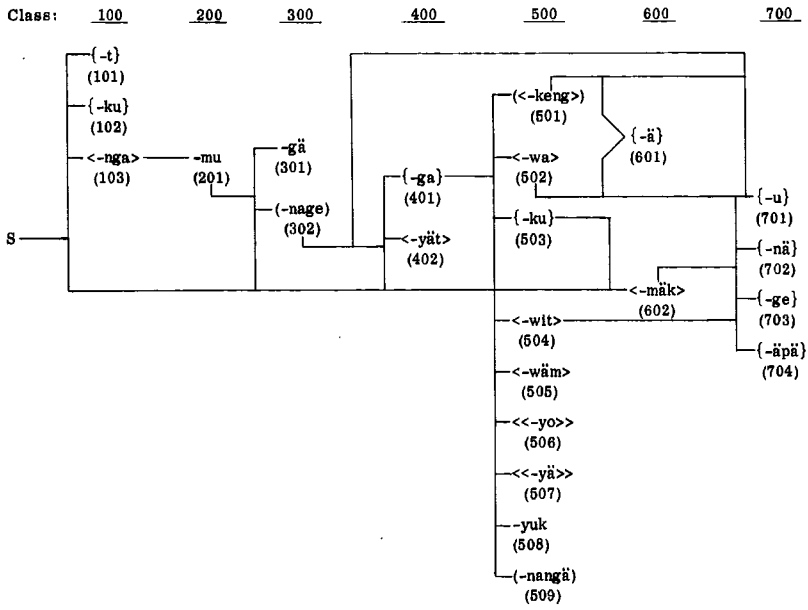

CHART B: Inventory, Ordering and Co-occurrence Restrictions of Verb Suffixes

3.21. Class 100 consists of the 'singular immediate imperative' suffix {-t} (101), the suffix {-ku} (102) which indicates a sequential construction, and the 'beneficiary person' suffix <-nga> (103).

3.211. Suffix 101 {-t} 'singular immediate imperative' has three allomorphs: -ng ∞ -t ∞ -p.[20] These allomorphs are morphologically determined as follows:

[20] Suffix 101 is considered a part of the paradigmatic set <<-yo>> (506) 'imperative' even though it occurs in first order only. (See Chart C.)

-ng[21] occurs with Class A verb stems.

ku-ng 'go + sing-imper' (go!)

i-ni-ng 'him + tell + sing-imper' (tell him!)

-t occurs with Class B verb stems.

mu-t 'throw + sing-imper' (throw [it]!)

tä-ngu-t 'him + strike + sing-imper' (strike him!)

-p occurs with Class C verb stems.

na-du-p 'me + see + sing-imper' (look at me!)

nata-p 'listen + sing-imper' (listen!)

3.212. Suffix 102 {-ku} indicates a sequential relationship to the action of the following predicate, and occurs only adjacent to the stem. This suffix does not co-occur with any other suffix. The allomorphs, -ku ~ -u, are phonologically determined as follows:

-ku occurs after a vowel final stem.

-u occurs after a consonant final stem.

Examples follow with the stems ku- 'go' and ap- 'come':

ku-ku na-k 'go + seq eat + he-compl' (going he ate) or (he went and ate)

ap-u na-k 'come + seq eat-he-compl' (coming he ate) or (he came and ate)

[21] The -ng allomorph of this suffix occurs in third order with the benefactive suffixes <-nga> and -mu as in the following illustration:

täsi-nga-mu-ng 'work + 1st sing + benef + imper' (work for me!)

3.213. Suffix 103 'beneficiary person' consists of a paradigmatic set which is represented by the first person singular form <-nga>. It obligatorily co-occurs with the 'benefactive' suffix -mu (201), and is always followed by at least one suffix of Classes 300 through 600 or by the -ng allomorph of the imperative suffix 101 {-t}. (See Chart C for this paradigm.) Examples of each of the six beneficiary person suffixes follow with the verb stem täsi- 'do, make, work':

täsi-nga-mu-k 'work + 1st sing + benef + 3rd sing-compl' (he worked for me)

täsi-ga-mu-k 'work + 2nd sing + benef + 3rd sing-compl' (he worked for you)

täsi-ngä-mu-k 'work + 3rd sing + benef + 3rd sing-compl' (he worked for him)

täsi-ni-mu-k 'work + 1st dl/pl + benef + 3rd sing-compl' (he worked for us)

täsi-da-mu-k 'work + 2nd dl/pl + benef + 3rd sing-compl' (he worked for you [dl/pl])

täsi-yä-mu-k 'work + 3rd pl + benef + 3rd sing-compl' (he worked for them)

3.22. Class 200 consists of the suffix -mu- 201 'benefactive mode' which co-occurs with a beneficiary person suffix of first order, and with at least one suffix of Classes 300 through 600 or with the -ng allomorph of the imperative suffix 101 {-t}. (See 3.213 for illustrations of suffix 201.)

When this suffix is followed by a w initial suffix, the two contiguous phonemes of those suffixes are lost as follows: mu + wi > mi. Examples follow with the stem täsi- 'do, make, work':

täsi-nga-mu + wik > täsi-nga-mik 'work + 1st sing + benef-3rd sing-fut' (he will work for me)

täsi-nga-mu + wät > täsi-nga-mät 'work + 1st sing + benef-2nd dl-phobic' (you two might work for me)

täsi-nga-mu + wim > täsi-nga-mim 'work + 1st sing + benef-2nd sing-interr-immediate' (will you work for me now?)

3.23. Class 300 consists of the 'singular immediate imperative' suffix -gä (301), and the suffix -nage 'subjunctive of desirability' (302).

3.231. Suffix 301, -gä 'singular immediate imperative', co-occurs only with suffixes 103 <-nga> 'beneficiary person' and 201 -mu- 'benefactive mode'. Illustrations follow with the stem täsi- 'do, make, work':

täsi-gä 'work + sing-imper' (work!) or (do it!)

täsi-nga-mu-gä 'work + 1st sing + benef + sing-imper' (work for me!)

3.232. Suffix 302, -nage 'subjunctive of desirability', co-occurs with certain higher order suffixes, and with the lower order suffixes which indicate benefactive mode.

3.2321. When -nage is the last morpheme of the verb expression it signals a dependent clause construction of purpose, conditional desire, or nonconditional (stative) desire. The actor of this verb is indicated in the following verb.

Examples follow with the verb stems ku- 'go' and pä- 'take' showing these three dependent constructions:

Purpose

wam pä-nage ap-meäk 'talk take-pl obj + desire come + 2nd dl-compl' (you two came to take [the] message)

Conditional desire

ku-nage ku-ga-yo 'go + desire go + cont + sing-fut-imper' (if you want to go, go ahead)

Nonconditional desire

ku-nage nata-t 'go + desire wish to + 1st sing-compl' (I wanted to go)

3.2322. The suffix -nage, when co-occurring with any higher order suffix, indicates the subjunctive mode of desirability. This verb functions as the predicate of an independent clause. Examples follow with the verb stem ku- 'go' plus modal suffixes indicating indicative, imperative, interrogative, prohibitive and phobic:

Indicative

ku-nage-mäng 'go + desire + 1st pl-compl' (we all wanted to go)

ku-nage-ga-t 'go + desire + cont + 1st sing-compl' (I am wanting to go)

ku-nage-ning 'go + desire + 3rd pl-fut' (they will want to go)

Imperative

ku-nage-yo[22] 'go + desire + 2nd sing-fut-imper'
(you must want to go)

Interrogative

ku-nage-sän 'go + desire + 2nd dl-simple interr'
(do you two want to go?)

Prohibitive

ma-ku-nage-wim 'prohib + go + desire + 2nd sing'
(you must not want to go)

Phobic

ku-nage-yäk 'go + desire + 3rd sing-phobic'
(he might want to go)

The following examples show -nage co-occurring with the second order suffix -mu- and the first order suffix <-nga>:

täsi-ngä-mu-nage täsi-yo 'work + 3rd sing + benef + desire work + 2nd sing-fut-imper' (if you want to work for him, do it)

täsi-ngä-mu-nage-ku-m 'work + 3rd sing + benef + desire + past + 1st sing-compl' (I wanted to work for him)

[22] A transition vowel i occurs between -nage and any higher order suffix. It is most prominent with y initial suffixes. In very slow speech this transition vowel is dropped with all but y initial suffixes, e.g., [ku-nage-i-yo] > /ku-nage-yo/ 'go + desire + 1st sing-fut-imper' (you must want to go!)

3.24. Class 400 consists of two suffixes: the 'continuative' suffix (-ga ∞ -a) ∞ (-ka ∞ -a) (401), and the suffix <-yät> 'phobic' (402).

3.241. Suffix 401, (-ga ∞ -a) ∞ (-ka ∞ -a) 'continuative' must be followed by a suffix of Class 500, or by 602 <-mäk> 'indicative completive actor person'. The first two allomorphs of 401, -ga ∞ -a, occur with a singular actor person suffix. The last two allomorphs, -ka ∞ -a, occur with a dual or plural actor person suffix, or with 302 -nage 'subjunctive of desirability'[23] or with 501 'sequential'. The second allomorph of both sets is the same, and occurs with a restricted class of verb stems. (Only four members of this class have been observed, therefore no designation has been given to it.) The first allomorph of each set occurs with all other verb stems.[24] Examples follow with the stems täsi- 'do, make, work' and nata- 'hear, know':

täsi-ga-k 'work + cont + 3rd sing-compl'
(he is working)

täsi-ka-mäng 'work + cont + 1st pl-compl'
(we are all working)

nata-a-k 'hear + cont + 3rd sing-compl'
(he hears/is hearing)

nata-a-mäng 'hear + cont + 1st pl-compl'
(we all hear)

[23] The allomorph -ka of suffix 401 may occur preceding suffix 302 -nage. At the same time any appropriate allomorph of 401 may follow -nage. Such a double occurrence of this morpheme intensifies the meaning. The occurrence of -ka before -nage is not construed as a separate suffix because it is identical in both form and meaning to suffix 401. And if it were considered to be a different suffix its occurrence would be limited severely, i.e., preceding -nage. This is similar to the situation described for the -ng allomorph of suffix 101. (See footnote 4.)

[24] See 2.

	103 Benef. Person	402 Phobic Actor Person	502 Change of Actor Person	504 Future Actor Person	505 Obligation Actor Person	506 Imperative Actor Person		507 Interrogative Actor Person		602 Completive Actor Person
						Immediate	Future	Immediate	Simple	
1at sing	-nga	-yät	-wa	-wit	-wäm	-	-	-	-	-t ∞ -m
2nd sing	-ga	-yä	-wi	-wiyäk	-wim	-ng ∞ -t ∞ -p	-yo	-wim	-yä	-yäk
3rd sing	-ngä	-yäk	-wän	-wik	-wan	-	-yok	-	-	-k ∞ -t
1at dual	-ni	-säm	-ta	-aim	-täm	-	-	-	-	-mäk
1at plural		-näm	-na	-nim	-nam	-	-	-	-	-mäng
2nd dual	-da	-sän	-wät	-sän	-wäm	(-un ∞ -gun ∞ -bun) ∞ -kun	-aon	-wät	-aän	-meäk
2nd plural		-wäm		-ning		(-ut ∞ -gut ∞ -but) ∞ -kut	-nong	-wäm	-ning	-ing
3rd dual	-yä	-näng	-wä	-aän		-	-	-	-	-meäk
3rd plural				-ning		-	-	-	-	-ing

CHART C: Paradigms of Suffixes 103, 402, 502, 504, 505, 506, 507, 602

3.242. Suffix 402 indicates apprehension, and is a paradigmatic set represented by the first person singular <-yät>. These suffixes are compound[25] even though the completive actor person suffixes (602) are evidently present in the first and third singular forms. Suffixes 402 specifically indicate an attitude of apprehension on the part of the speaker, and are therefore labelled 'phobic'. Each of these suffixes in

[25] Morpheme cuts to separate off the actor person of this suffix are not feasible as this would result in an unwieldly set of allomorphs for both 'phobic' and 'actor person' morphemes. It results in a much simpler description to consider this a compound suffix.

the paradigm has more than one allomorph except the first person plural and the third person dual/plural. In Chart C, where all of the paradigmatic sets described in this paper are shown, only the basic allomorph is listed if the allomorphs are morphologically determined according to the previously noted pattern. (See 3.) Examples follow with the verb stems kungä- ∞ kum- ∞ kup- 'die', na- ∞ näp- 'eat', -wa- ∞ -wam- 'chase' and ku- 'go':

kup-sät 'die + 1st sing-phobic' (I might die)

näp-sät 'eat + 1st sing-phobic' (I might eat [it])

ta-wam-sät 'him + chase + 1st sing-phobic' (I might chase him)

ku-nage-yät 'go + desire + 1st sing-phobic' (I might want to go)

3.25. Class 500 consists of nine subgroups of the following four types: (a) a paradigmatic set; (b) two paradigmatic sets semantically related, e.g., 'imperative'; (c) a single morpheme, and (d) two morphemes semantically related, e.g., 'sequential'. Each of these subgroups occurs either adjacent to the verb stem, following the second order suffix -mu 'benefactive mode' which always co-occurs with suffix 103 <-nga>, the third order suffix -nage 'subjunctive of desirability', or the fourth order suffix {-ga} 'continuative'. Each has its own co-occurrence restrictions with higher order suffixes. Class 500 suffixes have been dealt with out of unit sequence to permit grouping them according to the above four types.

3.251. Those subgroups which consist of a single paradigmatic set of suffixes are 502 <-wa>, 504 <-wit>, and 505 <-wäm>.

3.2511. The affixes of subgroup 502 indicate that the next verb has a different actor. They also indicate a relationship with the following action of cause and effect, or successive action. They are compound affixes. (See Chart C for this paradigm.) Examples follow with the verb stem täsi- 'do, make, work' showing only the first person singular suffix -wa:

täsi-wa ku-k 'do + 1st sing-change of actor go + 3rd sing-compl' (I did [it], and he went) or (I caused him to go)

täsi-wa ku-wik 'do + 1st sing-change of actor go + 3rd sing-fut' (I will cause him to go)

täsi-ga-wa ku-wik 'do + cont + 1st sing-change of actor go + 3rd sing-fut' (I will keep on doing [it], and [as a result] he will go)

(1) When no second action occurs these suffixes indicate an intentive mode in first person, or an imperative in second person. Third person forms do not occur without a following action. Examples follow with the verb stem ku- 'go':

ku-wa 'go + 1st sing-intent' (I'll go [now])

ku-ta 'go + 1st dl-intent' (we two will go [now])

ku-na 'go + 1st pl-intent' (we all will go [now])

ku-wi 'go + 2nd sing-imper' (go!) or (go on!)

ku-wät 'go + 2nd dl/pl-imper' (you two/all go [on]!)

(2) In simultaneous actions in Wantoat (whether for same actor or different actors) the first action sets the time context for the second. A simultaneous relation between two actions with different actors is indicated by a reduplication-like co-occurrence of two of these suffixes with the first

verb stem. In no instance are the two 502 suffixes identical. The following combinations occur:

-wä-wa 'second/third-dl/pl + first-sing'

-wa-wi 'first-sing + second-sing'

-wa-wän 'first-sing + third-sing'

-wät-da 'second-dl/pl + first-dual'

-wät-na 'second-dl/pl + first-plural'

-wa-wät 'first-sing + second-dl/pl'

-wa-wä 'first-sing + third-dl/pl'

Examples follow with the verb stem ku- 'go':

ku-wä-wa na-k 'go + 3rd dl/pl + 1st sing eat + 3rd sing-compl' (as I was going he ate)

ku-wa-wi na-k 'go + 1st sing + 2nd sing eat + 3rd sing-compl' (as you were going he ate)

ku-wa-wän na-k 'go + 1st sing + 3rd sing eat + 3rd sing-compl' (as he was going he [different actor] ate)

ku-wät-da na-k 'go + 2nd dl/pl + 1st dl eat + 3rd sing-compl' (as we two were going he ate)

ku-wät-na na-k 'go + 2nd dl/pl + 1st pl eat + 3rd sing-compl' (as we all were going he ate)

ku-wa-wät na-k 'go + 1st sing + 2nd dl/pl eat + 3rd sing-compl' (as you two/all were going he ate)

ku-wa-wä na-k 'go + 1st sing + 3rd dl/pl eat + 3rd sing-compl' (as they were going he ate)

3.2512. Subgroup 504 consists of the suffix <-wit> which is considered to be a compound of 'future' (504) with 'completive actor person' (602) even though the 602 suffixes are clearly present in the singular forms. (See Chart C for this paradigm.) Examples follow with the verb stems ku- 'go', na- ∞ näp- 'eat' and -wa- ∞ -wam- 'chase':

ku-wit 'go + 1st sing-fut' (I will go)

nä-pit 'eat + 1st sing-fut' (I will eat [it])

ta-wa-bit 'him + chase + 1st sing-fut' (I will chase him)

Suffix 504 may co-occur with the suffix 401 {-ga} 'continuative' indicating immediate future. Illustrations follow:

täsi-ga-wik 'do + cont + 3rd sing-will' (he will do it now)

täsi-ka-sim 'do + cont + 1st dl-will' (we two will do it now)

3.2513. Subgroup 505 consists of the suffix <-wäm> 'obligation' which is a portmanteau morpheme rather than a compound morpheme as no break can be made between the obligation morpheme and the actor person morpheme. (See Chart C for this paradigm.) Examples follow with the verb stems ku- 'go', na- ∞ näp- 'eat', -wa ∞ -wam- 'chase' and täsi- 'do, make, work':

ku-wäm 'go + 1st sing-oblig' (I ought to go)

nä-päm 'eat + 1st sing-oblig' (I ought to eat [it])

ta-wa-bäm 'him + chase + 1st sing-oblig' (I ought to chase him)

täsi-ga-wäm 'do + cont + 1st sing-oblig' (I ought to be doing [it])

täsi-ka-täm 'do + cont + 1st dl-oblig' (we two ought to be doing [it])

3.252. Those subgroups which consist of two semantically related paradigmatic sets are 506 <<-yo>> and 507 <<-yä>>.

3.2521. Subgroup 506 indicates imperative mode. One paradigmatic set indicates immediate imperative, and the other set indicates future imperative. (See Chart C for these paradigms.) Examples follow showing these two kinds of imperative with the verb stems ku- 'go' and ap- 'come':

ku-un 'go + 2nd dl-immed-imper' (you two must go!)

ap-bun 'come + 2nd dl-immed-imper' (you two must come!)

ku-son 'go + 2nd dl-fut-imper' (you two must go!)

ap-zon 'come + 2nd dl-fut-imper' (you two must come!)

There are four allomorphs of the immediate imperative second dual and second plural suffixes. The first three of these allomorphs are morphologically determined according to the pattern described under 3. The fourth allomorph occurs only when the suffix 401 {-ga} 'continuative' occurs in the same verb. The immediacy of the imperative is inten-

sified by the occurrence of 401. Examples follow with the verb stem täsi- 'do, make, work':

täsi-ka-kut 'do + cont + 2nd pl-immed-imper'
(you all must do [it] immediately!)

täsi-ka-kun 'do + cont + 2nd dl-immed-imper'
(you two do [it] immediately!)

3.2522. Subgroup 507 indicates future interrogative mode and actor person.[26] These suffixes are portmanteau including actor person with interrogative mode. One paradigmatic set indicates simple future interrogative, and the other set indicates immediate future interrogative. (See Chart C for these paradigms.) Examples follow showing both kinds of future interrogative with the verb stems ku- 'go' and na- ∞ näp- 'eat':

ku-yä 'go + 2nd sing-simple-fut-interr' (will you go [later]?)

nap-sä 'eat + 2nd sing-simple-fut-interr' (will you eat [later]?)

ku-wim 'go + 2nd sing-immed-fut-interr' (will you go [now]?)

na-pim 'eat + 2nd sing-immed-fut-interr' (will you eat [now]?)

3.253. Those subgroups which consist of a single morpheme are 503 {-ku}, 508 -yuk and 509 -nangä.

[26] Morphemes indicating interrogative occur only in second person, and denote a future aspect. Interrogative is otherwise indicated by a rising inflection on the final syllable of the verb.

3.2531. Subgroup 503 consists of the suffix {-ku} 'past' which must be followed by one of the 602 suffixes (actor person). This suffix has three allomorphs, -ku ∞ -gu ∞ -bu. Examples follow with the verb stems ku- 'go', -wa- ∞ -wam- 'chase', and wa- ∞ wap- 'wrap':

ku-ku-m 'go + past + 1st sing-compl' (I went)

ta-wa-gu-m '3rd sing + chase + past + 1st sing-compl' (I chased him)

wa-bu-m 'wrap + past + 1st sing-compl' (I wrapped [it])

Suffix 503 may co-occur with the -ka allomorph of suffix 401 {-ga} 'continuative' indicating action of a continuative kind completed in the past. Examples follow:

ku-ka-ku-m 'go + cont + past + 1st sing-compl' (I used to go)

täsi-ka-ku-mäng 'do + cont + past + 1st pl-compl' (we all were doing [it])

3.2532. Subgroup 508 consists of the suffix -yuk which indicates a simultaneous relationship between two actions in successive clauses with the same actor. Examples follow with the stems täsi- 'do, make, work' and ku- 'go':

täsi-yuk na-k 'work + simult eat + 3rd sing-compl' (while he worked he ate)

ku-yuk na-k 'go + simult eat + 3rd sing-compl' (while he went he ate)

3.2533. Subgroup 509 consists of the suffix -nangä 'capability'. Either positive or negative capability is always involved, and if not clear from context is indicated by take 'good' (for positive capability), or dua 'not' (for negative capability) immediately following or preceding the verb stem-suffix construction.

(1) The suffix -nangä may occur in independent verbal constructions. The actor person is indicated either by the context or by a free pronoun. Examples follow with the verb stem ku- 'go':

na ku-nangä dua '1st sing-actor go + able not'
(I can't go)

na ku-nangä take '1st sing-actor go + able good'
(I can go)

(2) This suffix may occur with a verb in a dependent construction. A clause indicating capability may contract a causative dependent relationship or a co-ordinate relationship with a following clause. In the former case the positive and negative indicators follow the first verb. In the latter case these indicators precede the verb. The actor of both clauses is always the same.[27] Illustrations follow with the verb stem ku- 'go':

ku-nangä duä mait si-ga-k 'go + able not illness be + cont + 3rd sing-compl' (he can't go because he is sick)

take ku-nangä ngänä mait si-ga-k 'good go + able but illness be + cont + 3rd sing-compl'
(he could go but he is sick)

[27] Change of actor requires a different type of construction.

3.254. That subgroup which consists of two semantically related morphemes is 501 'sequential with the same actor'.

3.2541. The suffix -keng denotes a punctiliar action which is always followed by another action.[28] Examples follow with the verb stem täsi- 'do, make, work':

täsi-keng ku-k 'work + seq-punct go + 3rd sing-compl' (working he went) or (he worked and [then] went)

täsi-ngä-mu-keng ku-k 'work + 3rd sing + benef + seq-punct go + 3rd sing-compl' (he worked for him and [then] went)

täsi-keng ku-wik 'work + seq-punct go + 3rd sing-fut' (he will work and [then] go)

A series of actions is indicated by a series of verb stems each with -keng, as in the following illustration:

ku-keng isat pä-keng na-keng epu-keng yu-ku-m 'go + punct betel-nut take-them + punct eat + punct come-down + punct be + past + 1st sing-compl' (I went and took [some] betel nut, and ate [it] and came down and remained)

3.2542. The suffix -sikang denotes a continuative action which is always followed by another action. Illustrations follow with the verb stem ku- 'go':

[28] The sequential relationship of 501 suffixes is distinguished from that of suffix 102 in that the latter denotes a sequence in which the first action (with {-ku}) sets the stage for the next action, and the former denotes a simple series of actions.

ku-sikang na-k 'go + cont eat + 3rd sing-compl' (he went [awhile] and [then] he ate)

ku-ka-sikang na-k 'go + cont + cont eat + 3rd sing-compl' (he continued to go [on awhile] and [then] he ate)

3.26. Class 600 consists of the suffixes {-ä} and <-mäk>.

3.261. Subgroup 601 suffix {-ä} 'prior action' occurs only following subgroup 501 or 502 suffixes, indicating that the action of the first verb is completed before the action of the second is begun. The allomorphs, -ä ~ -nä, are phonologically determined. The allomorph -ä follows a consonant; -nä follows a vowel. Examples follow with the verb stem täsi- 'do, make, work':

täsi-keng-ä na-k 'do + seq-punct + prior eat + 3rd sing-compl' (after doing [it] he ate)

täsi-sikang-ä na-k 'do + seq-linear + prior eat + 3rd sing-compl' (after he was doing [it] he ate)

täsi-wa-nä na-k 'do + 1st sing-diff actor + prior eat + 3rd sing-compl' (after I did [it] he ate)

3.262. Subgroup 602 suffix <-mäk> 'indicative completive actor person' is a paradigmatic set which occurs either adjacent to the stem or following suffixes 201 -mu 'benefactive mode', 302 -nage 'subjunctive of desirability', 401 {-ga} 'continuative', or 503 {-ku} 'past'. The first and

third person singular suffixes have two allomorphs each, and they are morphologically defined as follows:

-t ∞ -m '1st sing-compl' The allomorph -m occurs only following the 'past' suffix {-ku} (503). The allomorph -t occurs either adjacent to the stem or following any lower order suffix except {-ku}.

-k ∞ -t '3rd sing-compl' The allomorph -t occurs only following {-ku} 'past'. The allomorph -k occurs either adjacent to the stem or following any lower order suffix except {-ku}. (See Chart C for this paradigm.) Examples follow with the stem ku- 'go':

ku-t 'go + 1st sing-compl' (I went)

ku-ga-t 'go + cont + 1st sing-compl' (I am going)

ku-ku-m 'go + past + 1st sing-compl' (I had gone)

ku-yäk 'go + 2nd sing-compl' (you went) [With a rising inflection this is 'did you go?']

ku-ing 'go + 2nd/3rd pl-compl' (you/they all went)

3.27. Class 700 consists of suffixes which are nominalizing, syntactic or derivational markers. They are restricted in their occurrence in that they occur following only suffixes 302 -nage 'subjunctive of desirability', 501 <-keng> 'sequential', 504 <-wit> 'future actor person' and 602 <-mäk> 'indicative completive actor person'.

3.271. Subgroup 701 suffix {-u} forms a verbal noun which occurs only in the subject slot. The allomorphs -u ~ -ngu and -dä ~ -gä overlap in their occurrence. The second set, -dä ~ -gä, occur only following a member of subgroup 602 <-mäk> 'indicative completive actor person', or 504 <-wit> 'future actor person'. The -dä allomorph occurs only following those suffixes which have a final t.

The -gä allomorph occurs following any other 602 suffix. Examples follow with ku- 'go':

ku-ku-t-dä na-k 'go + past + 3rd sing-compl + nom eat + 3rd sing-compl' (he who went, ate [it])

ku-wik-gä na-k 'go + 3rd sing-fut + nom eat + 3rd sing-compl' (he who will go, ate [it])

The two allomorphs -u ~ -ngu occur with the same suffixes as -dä ~ -gä, and also with 302 -nage 'subjunctive of desirability', and the 501 suffixes <-keng> 'sequential punctiliar relation' and -sikang 'sequential continuative relation'. When -u ~ -nga occurs following suffixes 504 or 602 the final consonant of these suffixes is lost, e.g., ku-mäk 'go + 1st dl-compl' (we two went) becomes ku-mä-u 'go + 1st dl-compl + verbal noun' (we two who went). When -u ~ -ngu co-occurs with 302 or 501 the -u allomorph follows a consonant, and the -ngu allomorph follows a vowel. Examples follow with ku- 'go':

ku-nage-ngu na-k 'go + desire + verbal noun eat + 3rd sing-compl' (he who wanted to go ate [it])

ku-keng-u na-k 'go + cont-punct + verbal noun eat + 3rd sing-compl' (he who was going ate [it])

ku-wi-u na-k 'go + 3rd sing-fut + verbal noun eat + 3rd sing-compl' (he who will go ate [it])

ku-ku-u na-k 'go + past + verbal noun eat + 3rd sing-compl' (he who had gone ate [it])

ku-king-u nä-ning 'go + compl-2nd/3rd pl + verbal noun eat + 2nd/3rd pl-fut' (you/they all who went will eat [it])

3.272. Subgroup 702 suffix {-nä} forms a verbal noun which has object-like function. This suffix co-occurs only with 504 <-wit> 'future actor person' and 602 <-mäk> 'indicative completive actor person'. The allomorphs, -nä ~ -ngä ~ -ä, are phonologically defined, and occur as follows:

-nä follows m or t.
-ngä follows k.
-ä follows ng.

Examples follow with na- ∞ näp- 'eat':

na-ku-m-nä ka-ku-t 'eat + past + 1st sing + vb noun see + past + 3rd sing-compl' (he saw that I had eaten [it])

na-t-nä ka-k 'eat + 1st sing-compl + vb noun see + 3rd sing-compl' (he saw that I ate [it])

na-ka-mäk-ngä ka-a-k 'eat + cont + 1st dl-compl + vb noun see + cont + 3rd sing-compl' (he sees that we two are eating [it])

nä-nim-nä ka-ning 'eat + 1st pl-fut + vb noun see + 2nd/3rd pl-fut' (you/they all will see that we are eating [it])

na-mäng-ä ka-k 'eat + 1st pl-compl + vb noun see + 3rd sing-compl' (he saw that we all ate [it])

3.273. Subgroup 703 suffix {-ge} indicates a purposive construction, and occurs only following 504 'future' and 602 'completive' actor person suffixes. The actor person of the purposive construction is always different from that of the

following verb, but the tense of the second verbal form must always be either the same or farther past. The allomorphs -ge ~ -de are phonologically determined as follows: -ge follows a velar, and -de follows a bilabial or alveolar. Examples follow with ku- 'go':

ku-wik-ge täsi-ku-m 'go + 3rd sing-fut + purp do + past + 1st sing' (I did [it] so that he would go)

ku-nim-de täsi-wik 'go + 1st pl-fut + purp do + 3rd sing-fut' (he will do it so that we will go)

ku-ku-t-de täsi-ku-m 'go + past + 3rd sing + purp do + past + 1st sing' (I did it so that he would go)

3.274. Subgroup 704 suffix {-äpä} is a derivational suffix. The expression to which it is suffixed then takes any of the class of suffixes which occur with nouns. Suffix 704 occurs only following suffixes 504 'future' and 602 'completive'. Examples follow with the stem täsi- 'do, make, work':

täsi-k-äpä-tä na-k 'do + 3rd sing-compl + deriv + actor eat + 3rd sing-compl' (the one who did [it] ate [it]) or (the worker ate [it])

täsi-k-äpä-täni na-k 'do + 3rd sing-compl + deriv + poss eat + 3rd sing-compl' (he ate the worker's)

täsi-wik-äpä-e i-mu-k 'do + 3rd sing-fut + deriv + dative [to]-him + give + 3rd sing-compl' (he gave [it] to the one who will do [it])