

Fulniô (Yahthe) Syntax Structure

Preliminary Version

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0. Introduction

The syntax of Fulniô (Yahthe)¹ is presented² here in terms of three basic structural levels; in ascending order, ranging from the least to the most complex, these are: word level, phrase level, and sentence level. One exception is in the treatment of verbs, where it was necessary to also describe the stem level. In other word classes, stems and affixes are dealt with in a general way in the description of the word level. At the other extreme there are probably significant levels of structure beyond the sentence, such as the paragraph and the discourse. These have not yet been adequately studied and are not dealt with in this paper. The three levels presented here contrast in the type of structures which are included within them and in their distribution within a larger matrix.

The total structures at one level usually constitute the included units at a higher level. Thus, the word constitutes one of a potential sequence of items on the phrase level; conversely, the phrase consists of a potential sequence of words. Frequently the structure at one level is identical with the total structure at a higher level. Thus, a word may constitute a complete phrase or sentence. Occasionally a structure at one level constitutes an included unit of another structure at the same level or at a lower level. Thus, certain types of phrase occur as one of a sequence of units which constitute another type of phrase.

This presentation is based on the tagmemic theory developed by Pike³ and closely follows Pickett's model⁴ based on a particular variant of that theory. It is patterned after Derbyshire's presentation of Hishkaryana syntax as published in the International Journal of American Linguistics, Volume 27 Number 2 for April, 1961. An essential feature of Pike's theory is the emphasis of the correlation between slot (position of occurrence) and filler (class which fills that position), which together constitute an included unit, the tagmeme, at each level of structure. In the conventional formulaic representations, the tagmeme has been shown as: slot name: slot filler name. For simplicity of presentation, formulas in this paper⁵ show only one name for the whole unit, but it is important to recognize that this does not reflect any change in the basic slot-filler correlation concept.

The structures at each level are divided into classes or types which have identificational contrastive features. The criteria of classification are two: external distribution and internal structure. Thus, on the word level there are classes of verbs and nouns which contrast: (1) in their external distribution -- they fill different slots on the phrase level; (2) in their internal structure -- they are composed of different stems and affixes. The term hyperclass is used to describe a set of classes which, though they have certain contrastive features which require that they should be set up as different classes, have some features in common. Thus the verb hyperclass consists of eleven classes of verbs which: (1) fill the head slots of verb phrases, which in turn fill the predicate slots of sentences; (2) have overlapping internal features -- in some verb classes the stems overlap and in others the affixes overlap.

1. Word

The word is defined as the minimum syntactic unit. It is composed of a single morpheme or of a stem with one or more derivational or inflectional affixes. It fills a slot at phrase (most commonly) or sentence level. Word classes are grouped together into ten hyperclasses: verb,

noun, attributive, locative, temporal, preposition, adverb, conjunction, particle, and question word.

1.1 Verbs

The verb hyperclass consists of words made up from stems and affixes. Tagmemic formulas for verb stems are given below:

- Simple:
- Verb stem one: Intransitive free verb stem = +Intr. Verb Free Root
 - Verb stem two: Intransitive bound verb stem = +Intr. Sub. +Intr. Verb Bound Root
 - Verb stem three: Transitive free verb stem = +Trans. Verb Free Root
 - Verb stem four: Transitive bound verb stem = +Trans. Obj. +Trans. Verb Bound Root
 - Verb stem five: Conditional free verb stem = +Cond. Free Root
 - Verb stem six: Conditional bound verb stem = +Cond. Sub. +Cond. Bound Root
 - Verb stem seven: Equative bound verb stem = +Eq. Bound Root

Derived: The roots of derived verb stems eight through eleven are noun-like in meaning. Some are identifiable as nouns, others are not.

- Verb stem eight: Derived intransitive free verb stem = +Intr. Free Root +Verbalizer
- Verb stem nine: Derived intransitive bound verb stem = +Intr. Sub. +Intr. bound root +Verbalizer
- Verb stem ten: Derived transitive free verb stem = +Trans. Free Root +Verbalizer
- Verb stem eleven: Derived transitive bound verb stem = +Trans. Obj. +Trans. Bound Root +Verbalizer
- Verb stem twelve: Derived equative bound verb stem = +Intr. Sub. +Eq. Bound Root

The intransitive verb stems manifest the intransitive base tagmeme in the intransitive declarative limited action verb (V1), intransitive declarative unlimited action verb (V2), and the intransitive imperative verb (V7). They have the meaning of action affecting the subject which is not directed toward a goal.

The transitive verb stems manifest the transitive base tagmeme in the transitive declarative limited action verb (V3), transitive declarative unlimited action verb (V4), and the transitive imperative verb (V8). They have the meaning of action that is directed toward a goal.

Both the intransitive and transitive verb stems manifest the base tagmeme in the intentional declarative verb (V9).

The conditional verb stem classes five and six manifest the conditional base tagmeme in the conditional declarative verb (V7). They have the meaning of a condition of passive presence or absence.

The equative bound verb stem class seven manifests the equative base tagmeme in the equative declarative verb (V8) and the affirmative equative tagmeme in interrogative sentences.

The derived equative bound verb stem class twelve manifests the equative base tagmeme in the descriptive declarative limited action verb (V5) and the descriptive declarative unlimited action verb (V6). They have the meaning of equating a descriptive word or phrase to the subject of the sentence in which they occur.

All obligatory intransitive subject and transitive object tagmemes are manifested by a class of personal pronoun prefixes consisting of the following members:

- i- "first person singular" (i- combines with a single stop or nasal to become ĵ-)
- a- "second person singular"
- e- "third person singular"
- ya- "first person plural" (ya- becomes y- when preceding any consonant plus /o/. The consonant is lost resulting in yo).
- wa- "second person plural"
- tha- "third person plural"
- se- "indefinite person"
- sa- "reflexive"

These tagmemes may be replaced on the phrase level by a free subject or object tagmeme.

The verbalizer tagmeme is manifested by the single perturbing⁶ suffix, ‹ne "verbalizer" (‹ne becomes ‹ni when the final stem vowel /i/ is dropped because of perturbation.)⁷

Each verb stem class contrasts with all other classes in the fillers which make up the class.

Examples are given below:

- Verb stem one: ta "is present"; telya "think"; kfafa "sleep"
- Verb stem two: -či "arrive"; ‹ši "are present"; -ča "fall"
- Verb stem three: thuli "cut"; nétka "want"; fétfe "ask"
- Verb stem four: -ko "give"; -khde "know"; -tháyi "carry"
- Verb stem five: ne "is" or "has" (in the sense of passive presence).
- Verb stem six: -dwa "is not" or "has not" (in the sense of passive absence).
- Verb stem seven: ‹hae "is" (‹he following perturbing suffixes; ‹hae elsewhere); ‹dódwa "is not"
- Verb stem eight: khóh-ne "caring for"; táth-ne "talking"; khfael-ne "playing"
- Verb stem nine: -sfo-ne "hunting"; -šča-ne "expecting to survive" -hthe-ne "speaking"
- Verb stem ten: kfěj-ne "eating a mixture"; meh-ne "bending"; tól-ne "tying"

Verb stem eleven: -t-ne "making a light"; -d-ne "tasting"; -šiš-ne "piling up"
 Verb stem twelve: ne "verbalizer" (ne becomes ni when the final preceding vowel, /i/, is dropped because of contraction.)

There are eleven classes of verbs in the verb hyperclass:

1. Intransitive declarative limited action
2. Intransitive declarative unlimited action
3. Transitive declarative limited action
4. Transitive declarative unlimited action
5. Descriptive declarative limited action
6. Descriptive declarative unlimited action
7. Conditional declarative
8. Equative declarative
9. Intentional declarative
10. Intransitive imperative
11. Transitive imperative

Each of these classes manifests the tagmeme, verb phrase head (VxH), in the corresponding verb phrase, except in the case of classes 10 and 11 which manifest the predicate tagmemes in the corresponding imperative sentences. Verb class one also manifests the +Intr. Base tagmeme in Vx10, and verb class three also manifests the +Tr.Base tagmeme in Vx11.

Tagmemic formulas for verb classes are given below:⁸

- V1. Intransitive declarative limited action = +Intr.Base ±Base Desir.Comp.
 ±Base Intens.Comp. ±V.Tense Mg. ±V.Stative Mg. ±V.Neg.Mg. ±Sub.Num.Mg.
 +Base Lim.
- V2. Intransitive declarative unlimited action = +Intr.Base ±Base Desir.Comp.
 ±Base Intens.Comp. ±V.Tense Mg. ±V.Stative Mg. ±V.Neg.Mg. ±Sub.Num.Mg.
- V3. Transitive declarative limited action = +Tr.Base ±Base Desir.Comp.
 ±Base Intens.Comp. ±V.Tense Mg. ±V.Stative Mg. ±V.Neg.Mg. ±Obj.Num.Mg.
 +Base Lim.
- V4. Transitive declarative unlimited action = +Tr.Base ±Base Desir.Comp.
 ±Base Intens.Comp. ±V.Tense Mg. ±V.Stative Mg. ±V.Neg.Mg. ±Obj.Num.Mg.
- V5. Descriptive declarative limited action = +Descr.Mg. +/-Eq.Base ±Base Desir.Comp.
 ±Base Intens.Comp. ±V.Tense Mg. ±V.Stative Mg. ±V.Neg.Mg. ±Sub.Num.Mg.
 +Base Lim.
- V6. Descriptive declarative unlimited action = +Descr.Mg. +/-Eq.Base ±Base Desir.Comp.
 ±Base Intens.Comp. ±V.Tense Mg. ±V.Stative Mg. ±V.Neg.Mg. ±Sub.Num.Mg.
- V7. Conditional declarative = +Cond. Base
- V8. Equative declarative = +Eq. Base

- V9. Intentional declarative = +V.Base +Intent.Mg.
 V10. Intransitive imperative = +Intr.Base +Imp.Mg.
 V11. Transitive imperative = +Tr.Base +Imp.Mg.

V1. The intransitive declarative limited action verb (V1) manifests the tagmemes +Vx1H and ±Sub.Mg. in the intransitive declarative limited action verb phrase, +Intr. Base in the negative intransitive imperative verb phrase, and +Px3A in the prepositional phrase three. A sub-class of V1 (no- "go"; teh- "continuously"; yɔ- "be successful or well done") manifests the tagmeme ±L.A.VxMg.1 in limited action verb phrases. It has the meaning of limited action affecting the subject which is not directed toward a goal. Internal structure is shown above. It contrasts with other verb classes (except V2, V9, and V10) in the class of stems which manifest the base tagmeme. It further contrasts with verb classes 7 through 11 in the suffix tagmemes. It contrasts with V2 in the obligatory base limiter tagmeme of V1. The internal structure is now described:

The obligatory intransitive base tagmeme (+Int.Base) occurs in word initial with the meaning of the basic intransitive item that expresses action affecting the subject and which is not directed toward a goal. It is manifested by intransitive stem classes 1, 2, 8, and 9.

The obligatory intransitive base limiter tagmeme (+Base Lim.) occurs in word final with the meaning of restricting the action to a specific time as opposed to a state of being. It is manifested by the single base limiter suffix, -ka (when the preceding vowel is lost by contraction, -ka becomes -kya if /i/ or /e/ is lost, or -kwa if /o/ is lost).

The optional base desiderative compliment tagmeme (±Base Des.Comp.) occurs in first suffix position, shifting the basic meaning to desire for the action of the base rather than the actual realization of the action. It is manifested by the single suffix, -tka "wants" (-tka following vowels, -tak(a) following consonants; the parenthesis indicates that the final vowel is lost if followed by another suffix).

The optional base compliment tagmeme (±Base Comp.) occurs in second suffix position with the meaning of intensification of the action. It is manifested by the verb intensifier suffix class, which has the following members: -khan(e) "yet"; -han(e) "again"; -wahti "much".

The optional verb tense margin tagmeme (±V.Tense Mg.) occurs in third suffix position with the meaning of distant past tense. It is manifested by the single verb tense suffix, -lya "distant past".

The optional verb stative margin tagmeme (±V.Stat.Mg.) occurs in fourth suffix position with the meaning of a continuing state of the action in the distant past. It is manifested by temporal class 1.4.8.c.

The optional verb negative margin tagmeme (±V.Neg.Mg.) occurs in fifth suffix position with the meaning of negating the action of the base. It is manifested by the single verb negative suffix, -de "negative" (-de becomes -dóde when used with verb stems that contract, -dót when this form is followed by a voiceless stop.)

The optional subject number tagmeme (\pm Sub.Num.) occurs in sixth suffix position with the meaning of pluralizing the subject. It is manifested by the single plural suffix, $-s\acute{a}t(o)$ "plural".

V2. The intransitive declarative unlimited action verb class two (V2) manifests the tagmemes $+Vx2H$ in the intransitive declarative unlimited action verb phrase, $+Vx12H$ in the stative verb phrase, $+Px4A$ in the prepositional phrase four, and $+Px5A$ in the prepositional phrase five. Under certain circumstances V2 manifests the tagmeme $+Vx4H$ in the transitive declarative unlimited action verb phrase (see $Vx4$). Certain members (notably $no-$ "go"; and $teh-$ "continue") manifest the tagmeme $\pm U.A.VxMg.1$ in unlimited action verb phrases. V2 has the meaning of unlimited action affecting the subject which is not directed toward a goal. Internal structure is shown above. It contrasts with other verb classes (except V1, V9, and V10) in the class of stems which manifest the base tagmeme. It further contrasts with verb classes 7 through 11 in the suffix tagmemes. It contrasts with V1 in the absence of the base limiter tagmeme. The internal structure is identical with V1 except that V2 does not contain the base limiter tagmeme.

V3. The transitive declarative limited action verb class three (V3) manifests the tagmemes $+Vx3H$ in the transitive declarative limited action verb phrase, $+Tr.Base$ in the negative transitive imperative phrase, $+Lx4A$ in the locational phrase four, and $+Px3A$ in the prepositional phrase three. It has the meaning of limited action that is directed toward a goal. Internal structure is shown above. It contrasts with other verb classes (except V4, V9, and V11) in the class of stems which manifest the base tagmeme. It further contrasts with verb classes 7 through 11 in the suffix tagmemes. It contrasts with V4 in the obligatory base limiter tagmeme of V3. The internal structure is now described.

The obligatory transitive base tagmeme ($+Tr.Base$) occurs in word initial with the meaning of the basic transitive item that expresses action which is directed toward a goal. It is manifested by transitive stem classes 3, 4, 10, and 11.

The optional object number tagmeme (\pm Obj.Num.Mg.) occurs in sixth suffix position with the meaning of pluralizing the object. It is manifested by the single plural suffix, $-s\acute{a}t(o)$ "plural". This is the same filler as occurs in the \pm Sub.Num. tagmeme in V1.

The other tagmemes are all identical with their counterparts in class V1.

V4. The transitive declarative unlimited action verb class four (V4) manifests the tagmemes $+Vx4H$ in the transitive declarative unlimited action verb phrase, $+Vx12H$ in the stative verb phrase, $+Px4A$ in the prepositional phrase four, and $+Px5A$ in the prepositional phrase five. It has the meaning of unlimited action that is directed toward a goal. Internal structure is shown above. It contrasts with other verb classes (except V3, V9, and V11) in the class of stems which manifest the base tagmeme. It further contrasts with verb classes 7 through 11 in the suffix tagmemes. It contrasts with V3 in the absence of the base limiter tagmeme. The internal structure is identical with V3 except that V4 does not contain the base limiter tagmeme.

V5. The descriptive declarative limited action verb class five (V5) manifests the tagmemes $+Vx5H$ in the descriptive declarative limited action verb phrase, and $+Px3A$ in the prepositional phrase three. It has the meaning of limited description rather than action. Internal structure is shown above. It contrasts with all other verb classes (except V6) in the class of stems which

manifest the base tagmeme. It further contrasts with V6 in the obligatory base limiter tagmeme of V5. The internal structure is now described:

The obligatory descriptive margin tagmeme (+Descr.Mg.) occurs in word initial with the meaning of description. It is manifested by attributive class one or Nx1.

The equative base tagmeme (+/_Eq.Base) occurs in second position with the meaning of equation. It is manifested by verb stem class 12. It obligatorily occurs when the +Descr.Mg. is manifested by A1.a.1 or A1.b.1, but it obligatorily does not occur when +Descr.Mg. is manifested by A1.a.2 or A1.b.2. When the ±V.Stative Mg. tagmeme is present, the equative base tagmeme becomes optional.

The other tagmemes are identical with their counterparts in VI.

V6. The descriptive declarative unlimited action verb class six (V6) manifests the tagmemes +Vx6H in the descriptive declarative unlimited action verb phrase, +Vx12H in the stative verb phrase, +Px4A in the prepositional phrase four, and +Px5A in the prepositional phrase five. It has the meaning of unlimited description rather than action. Internal structure is shown above. It contrasts with all other verb classes (except V5) in the class of stems which manifest the base tagmeme. It further contrasts with V5 in the obligatory non-occurrence of the base limiter tagmeme. The internal structure is now described:

The obligatory descriptive margin tagmeme (+Descr.Mg.) occurs in word initial and is identical with its counterpart in V5.

The equative base tagmeme (+/_Eq.Base) occurs in second position and is identical with its counterpart in V5. The other tagmemes are all identical with their counterparts in V2.

V7. The conditional declarative verb class seven (V7) manifests the tagmeme +Vx7H in the conditional declarative verb phrase. It has the meaning of a condition of passive presence or absence. Internal structure is shown above. It contrasts with all other verb classes in the class of stems which manifest the base tagmeme as well as in the absence of any suffix tagmemes. The internal structure is now described:

There is only one tagmeme, the obligatory conditional base (+Cond.Base). It is manifested by verb stem classes five and six.

V8. The equative declarative verb class eight (V8) manifests the tagmeme +Vx8H in the equative declarative verb phrase. It has the meaning of permanently equating the subject with another noun or attributive, and is used most commonly as an affirmation. Internal structure is shown above. It contrasts with all other verb classes in the class of stems which manifest the base tagmeme, as well as in the absence of any suffix tagmeme. The internal structure is now described:

There is only one tagmeme, the obligatory equative base tagmeme (+Eq.Base). It is manifested by verb stem class seven.

EXAMPLES OF VERB CLASSES

VERB 1

<u>Stem 1</u>	kfafka kfaf-takka kfafkhánkya kfaflyakhiyaka kfaf-dótkya kfafasátkwa	"sleeping" "wanting to sleep" "still sleeping" "was sleeping" (distant past) "not sleeping" "they are sleeping"
<u>Stem 2</u>	ečkya eč-takka ečikhánkya ečilyaka ečikhiyaka eč-ǰótkya ečisátkwa	"he is arriving" "he is wanting to arrive" "he is still arriving" "he arrived" (distant past) "he was arriving" (distant past) "he is not arriving" "they are arriving"
<u>Stem 8</u>	khfael-neka khfael-ne-tkaka khfael-nehánkya khfael-nelyaka khfael-nekhiyaka khfael-ne-deka khfael-nesátkwa	"playing" "wanting to play" "playing again" "played" (distant past) "was playing" (distant past) "not playing" "they are playing"
<u>Stem 9</u>	ehthe-nkya ehthe-n-takka ehthe-nekhánkya ehthe-nelyaka ehthe-nekhiyaka ehthe-n-dótkya ehthe-nesátkwa	"he is speaking" "he is wanting to speak" "he is still speaking" "he spoke" (distant past) "he was speaking" (distant past) "he is not speaking" "they are speaking"

VERB 2

<u>Stem 1</u>	telya telya-tka telya-wahti telyakhiya telya-de telyasáto	"thinks" "wants to think" "really thinks" "was thinking" (distant past) "does not think" "they think"
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VERB 2

<u>Stem 2</u>	eča eča-tka eča-wahti ečakhiya eča-de ečasátkwa	"he falls" "he wants to fall" "he really falls" "he was falling" (distant past) "he doesn't fall" "they fall"
<u>Stem 8</u>	táth-ne táth-ne-tka táth-neháne táth-nekhiya táth-ne-de táth-nesátkwa	"talks" "wants to talk" "talks again" "was talking" (distant past) "does not talk" "they talk"
<u>Stem 9</u>	esfo-ne esfo-n-taka esfo-nekháne esfo-nekhiya esfo-n-dóde esfo-nesátkwa	"he hunts" "he wants to hunt" "he hunts again" "he was hunting" (distant past) "he doesn't hunt" "they hunt"

VERB 3

<u>Stem 3</u>	thulkya thul-takka thulihánkya thulikhiyaka thul-jótkya thulisátkwa	"cutting" "wanting to cut" "cutting again" "was cutting" (distant past) "not cutting" "they are cutting"
<u>Stem 4</u>	ekhdeka ekhde-tkaka ekhdekhánkya ekhdelyakhiyaka ekhde-deka ekhdesátkwa	"knows it" "wants to know it" "still knows it" "was knowing it" (distant past) "does not know it" "they know it"
<u>Stem 10</u>	meh-neka meh-ne-tkaka meh-nehánkya meh-nekhiyaka meh-ne-deka meh-nesátkwa	"bending" "wanting to bend" "bending again" "was bending" (distant past) "not bending" "they are bending"

VERB 3

<u>Stem 11</u>	ed-neka ed-ne-tkaka ed-nehánkyh ed-nekhiyaka ed-ne-deka ed-nesátkwa	"is tasting it" "is wanting to taste it" "is tasting it again" "was tasting it" (distant past) "is not tasting it" "they are tasting it"
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VERB 4

<u>Stem 3</u>	fétfe fétfe-tka fétfe-wahti fétfelya fétfekhiya fétfe-de fétfesáto	"asks" "wants to ask" "really asks" "asked" (distant past) "was asking" (distant past) "doesn't ask" "they ask"
<u>Stem 4</u>	etháyi etháy-taka etháy-wahti etháylya etháykhiya etháy-jóde etháysáto	"carries it" "wants to carry it" "really carries it" "carried it" (distant past) "was carrying it (distant past) "doesn't carry it" "they carry it"
<u>Stem 10</u>	tól-ne tól-ne-tka tól-ne-wahti tól-nelya tól-nekhiya tól-ne-de tól-nesáto	"ties" "wants to tie" "really ties" "tied" (distant past) "was tying "(distant past) "does not tie" "they tie"
<u>Stem 11</u>	ešiš-ne ešiš-ne-tka ešiš-neháne ešiš-nelya ešiš-nekhiya ešiš-ne-de ešiš-nesáto	"piles it up" "wants to pile it up" "piles it up again" "piled it up" (distant past) "was piling it up" (distant past) "does not pile it up" "they pile it up"

VERB 5

With Attributive class A1a1 and Verb stem 12

éfaekhla-nkya	"is old"
éfaekhla-n-takka	"wanting to be old"
éfaekhla-n-wahtika	"is very old"
éfaekhla-nelyaka	"was old" (distant past)
éfaekhlakhiyaka	"was old" (distant past)
éfaekhla-ne-deka	"is not old"
éfaekhla-nesátkwa	"they are old"

With Attributive class A1b2

ehaésaka	"is big"
ehaésa-tkaka	"wanting to be big"
ehaésa-wahtika	"is very big"
ehaésalyaka	"was big" (distant past)
ehaésakhiyaka	"was being big" (distant past)
ehaésa-deka	"is not big"
ehaésasátkwa	"they are big"

VERB 6

With Attribute class A1a1 and Verb stem 12

támtey-ne	"is second"
támtey-ne-tka	"wants to be second"
támtey-neháne	"is second again"
támtey-nelya	"was second" (distant past)
támtey-nekhiya	"was being second" (distant past)
támtey-ne-de	"is not second"
támtey-nesáto	"they are second"

with Attributive class A1b2

ekka	"is small"
ekka-tka	"wants to be small"
ekka-wahti	"is very small"
ekkalya	"was small" (distant past)
ekkahiya	"was being small" (distant past)
ekka-de	"is not small"
ekkasáto	"they are small"

VERB 7

Stem 5 (sa) ne "it is present"
"is"

Stem 6 (fdǰaka) dwa "there are no snakes"
"is not"

VERB 8

(owe)-hae (ɔtska)	"I am a man"
"affirmative equater"	
(owe)-dódwa (čáyi)	"I am not a woman"
"negative equater"	

VERB 9 (see page 16)

<u>Stem 1</u>	kfafa-ɕa	"to sleep"
<u>Stem 2</u>	eči-ɕa	"he to come"
<u>Stem 3</u>	thuli-ɕa	"to cut"
<u>Stem 4</u>	eko-ɕa	"it to be given"
<u>Stem 8</u>	khfael-ne-ɕa	"to play"
<u>Stem 9</u>	ehthe-ne-ɕa	"he to speak"
<u>Stem 10</u>	meh-ne-ɕa	"to bend"
<u>Stem 11</u>	ed-ne-ɕa	"to taste it"

VERB 10 (See page 16)

<u>Stem 1</u>	kfafa-xi kfafa-xto	"you sleep!" "you (pl.) sleep!"
<u>Stem 2</u>	ači-xi wači-xto	"you come!" "you (pl.) come!"
<u>Stem 8</u>	khfael-ne-xi khfael-ne-xto	"you play!" "you (pl.) play!"
<u>Stem 9</u>	ahthe-ne-xi wahthe-ne-xto	"you speak!" "you (pl.) speak!"

VERB 11 (See page 16)

<u>Stem 3</u>	fétfe-xi fétfe-xto	"you ask!" "you (pl.) ask!"
<u>Stem 4</u>	eko-xi eko-xto	"you give it!" "you (pl.) give it!"
<u>Stem 10</u>	meh-ne-xi meh-ne-xto	"you bend it!" "you (pl.) bend it"
<u>Stem 11</u>	ed-ne-xi ed-ne-xto	"you taste it!" "you (pl.) taste it!"

V9. The intentional declarative verb class nine (V9) manifests the tagmeme +Vx9H in the intentional verb phrase. It has the meaning of an intended action as opposed to realization of the action. Internal structure is shown above. It contrasts with all other verbs in the suffix tagmeme. The internal structure is now described:

The obligatory verb base tagmeme (+V.Base) occurs in word initial with the meaning of the action of its filler. It is manifested by any verb stem except verb stems 5, 6, 7 and 12.

The obligatory intentional margin tagmeme (+Intent. Mg.) occurs in word final with the meaning of intention. It is manifested by the verb intentional suffix *ʔa* "to be".

V10. The intransitive imperative verb class ten (V10) manifests the tagmeme +Vx10H in the intransitive imperative verb phrase. It has the meaning of a command affecting the recipient of the command. Internal structure is shown above. It contrasts with other verb classes (except V1, V2, and V9) in the class of stems which manifest the base tagmeme. It further contrasts with all other verb classes (except V11) in the suffix tagmeme. The internal structure is now described:

The obligatory intransitive base tagmeme (+Intr.Base) occurs in word initial. It is identical with its counterpart in V1.

The obligatory imperative margin tagmeme (+Imp.Mg.) occurs in word final with the meaning of command. It is manifested by the imperative verb perturbing suffixes, *ʔi* "individual command"; *ʔo* "group command".

V11. The transitive imperative verb class eleven (V11) manifests the tagmeme +Vx11H in the transitive imperative verb phrase. It has the meaning of a command with implied affect on some object as well as on the recipient of the command. Internal structure is shown above. It contrasts with other verb classes (except V3, V4, and V9) in the class of stems which manifest the base tagmeme. It further contrasts with all other verb classes (except V10) in the suffix tagmeme. The internal structure is now described:

The obligatory transitive base tagmeme (+Tr.Base) occurs in word initial. It is identical to its counterpart in V3. The obligatory imperative margin tagmeme (+Imp.Mg.) occurs in word final. It is identical with its counterpart in V10.

1.2 NOUNS

The noun hyperclass consists of six classes of nouns: 1. general, 2. pronouns, 3. derived intransitive stative, 4. derived transitive stative, 5. personal, and 6. demonstrative. This classification is based primarily on external distribution features. The classes are grouped together as one hyperclass because they overlap in the slots which they fill at higher levels of structure. They are distinct classes because each one fills at least one higher level slot which none of the other classes fill. There are also distinctions in internal structure: in the general class there are possessed and non-possessed sub-classes and the possessed have special possession markers; there are also derived and non-derived sub-classes and the derived are marked by special stems and suffixes. The derived intransitive stative and derived transitive stative classes are each marked by separate derivational markers. The pronoun and demonstrative classes are non-possessed and unmarked; the personal class consists only of certain members of class one.

The sub-division of the general noun class and the tagmemic formulas representing the internal structure of each sub-class are shown below.

A. Obligatory Possessed:

1. Simple masculine: +Possr.Mg. +Possd.Stem (NA1)
2. Simple feminine unmarked: +Possr.Mg. +Possd.Stem (NA2)
3. Simple feminine marked:
 - Sub-class (a): +Possr.Mg. +Possd.Stem A (NA3a) +Gender Mg.1
 - Sub-class (b): +Possr.Mg. +Possd.Stem B (NA3b) +Gender Mg.2
4. Derived from noun base:
 - Sub-class (a): +Possr.Mg. +Noun Base A1 (NA4a) ±Exc.Mg. +Deriv.Mg.E
 - Sub-class (b): +Possr.Mg. +Noun Base A2 (NA4b) +Deriv.Mg.F

B. Non-Possessed:

1. Simple masculine: +Masc.Item (NB1)
2. Simple feminine unmarked: +Fem.Item (NB2)
3. Simple feminine marked:
 - Sub-class (a): +Fem. Stem A (NB3a) +Gender Mg.1
 - Sub-class (b): +Fem. Stem B (NB3b) +Gender Mg.3
4. Simple irregular: +Irreg.Item (NB4)
5. Derived from noun base:
 - Sub-class (a): +Noun Base B1 (NB5a) +Deriv.Mg.E
 - Sub-class (b): +Noun Base B2 (NB5b) +Deriv.Mg.F

The general noun (N1) class manifests the tagmemes +Nx1Mg.1 and ±Nx1Mg.1 in the noun phrase one, +Nx2H in the noun phrase two, ±Nx3Mg.1 in the noun phrase three, +Nx4Mg.1 and +Nx4H in the noun phrase four, +Nx6H in the noun phrase six, ±Obj.Mg. in the verb phrases three and twelve and the transitive imperative sentence, +/_Sub.Mg. in verb phrase seven, +Ax1H in the attributive phrase one, +Tx2H in the time phrase two, ±Tx4Mg.1 in the time phrase four, ±Lx6Mg.1 in the locational phrase six, +Px6A in the prepositional phrase six, +Px7H2 in the prepositional phrase seven, ±Interr.Sub. and ±Interr.Obj. in the interrogative sentence types, and the ±Resp.Sub. in response sentence types. Also the +Obj.Mg. tagmeme in the transitive imperative sentence.

Sub-class NA1 has two obligatory tagmemes. The obligatory possessor margin tagmeme (+Possr.Mg.) occurs in word initial with the meaning of pronominal referent to the possessor of the item. It is manifested by attributive class 3a. The toneme is an intrinsic part of the slot rather than the filler, as indicated on the stem examples below. On the phrase level, this tagmeme may be replaced by a possessive tagmeme manifested by any simple noun.

The obligatory possessed stem tagmeme (+NA1) occurs in word final with the meaning of the item that is obligatorily possessed. It is manifested by a class of masculine bound stems which include some body parts, male relatives, land, houses, and other personal belongings which are inalienably possessed.

Examples are:

´ti	"house"	-tka	"head"	-hši	"brother"
-li	"hair"	-thfe	"father"	-hiya	"children"
´ka	"son"	-tho	"grandfather"	-sdo	"godparent"
-hfe	"land"				

Although on the word level there is no apparent difference between NA1 and NA2 or between NB1 and NB2, this division is based on the fact that on the phrase level feminine forms are modified by feminine marked attributives, whereas masculine forms are modified by unmarked attributives. Thus all noun stems are inherently masculine or feminine even though only NA3 and NB3 are overtly marked.

Sub-class NA2 has two obligatory tagmemes. The obligatory possessor margin tagmeme (+Possr.Mg.) occurs in word initial and is identical with its counterpart in sub-class NA1. The obligatory possessed stem tagmeme (+NA2) occurs in word final with the meaning of the feminine item that is obligatorily possessed. It is manifested by a small class of unmarked feminine bound stems which include some female relatives. Examples:

´sa	"mother"	´de	"wife"
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Sub-class NA3 is further sub-divided into classes a and b on the basis of contrast in the fillers of its gender margin tagmeme.

Sub-class NA3a has three obligatory tagmemes. The obligatory possessor margin tagmeme (+Possr.Mg.) occurs in word initial and is identical with its counterpart in sub-class NA1. The obligatory possessed stem A tagmeme (+NA3a) occurs in word medial with the meaning of the feminine item that is obligatorily possessed. It is manifested by a small class of marked feminine bound stems which overlap with NA1. They include some female relatives. An example is: -hši- "sibling".

The obligatory gender margin one tagmeme (+Gender Mg.1) occurs in word final with the meaning of feminine gender. It is manifested by the single inflectional gender perturbing suffix, ´ne "feminine".

Sub-class NA3b has three obligatory tagmemes. The obligatory possessor margin tagmeme (+Possr.Mg.) occurs in word initial and is identical with its counterpart in sub-class NA1. The obligatory possessed stem B tagmeme (+NA3b) occurs in word medial with the meaning of the feminine item that is obligatorily possessed. It is manifested by a small class of marked feminine bound stems which overlap with NA1. They include some female relatives. An example is: -ǰa- "relative".

The obligatory gender margin two tagmeme (+Gender Mg.2) occurs in word final with the meaning of feminine gender. It is manifested by the single inflectional gender suffix, -sa "feminine".

Sub-class NA4 is further sub-divided into classes a and b on the basis of contrast in the fillers of the noun base and derivational margin tagmemes.

Sub-class NA4a has one optional and three obligatory tagmemes. The obligatory possessor margin tagmeme (+Possr.Mg.) occurs in word initial and is identical with its counterpart in sub-class NA1. The obligatory noun base A1 tagmeme (+NA4a) occurs in second position with the meaning of the item. It is manifested by a small class of bound stems that overlap with NA1. Example: -hš*i*- "brother". The optional exclusive margin tagmeme (±Exc.Mg.) occurs in third position with the meaning of exclusive limitation. It is manifested by the single perturbing suffix, ′*na* "only". The obligatory derivational margin E tagmeme (+Deriv.Mg.E) occurs in word final with the meaning of categorizing the item of +NA4a as part of a larger group. It is manifested by the single derivational perturbing suffix, ′*towa* "entire group" (becomes ′*čowa* following /i/, ′*dowa* following /n/, or abbreviated forms ′*twa*, ′*čwa*, ′*dwa* when contraction occurs.)

Sub-class NA4b has three obligatory tagmemes. The obligatory possessor margin tagmeme (+Possr.Mg.) occurs in word initial and is identical with its counterpart in sub-class NA1. The obligatory noun base A2 tagmeme (+NA4b) occurs in word medial with the meaning of the item. It is manifested by a small class of bound stems that overlap with NA1. Example: -*thfé*- "father". The obligatory derivational margin F tagmeme (+Deriv.Mg.F) occurs in word final with the meaning of categorizing the item of +NA4b as part of a larger group. It is manifested by the single derivational perturbing suffix, ′*to* "entire group".

Sub-class NB1 has only one tagmeme, the obligatory non-possessed masculine item tagmeme (+NB1). It is manifested by a large class of non-possessed, non-derived nouns that are inherently masculine in gender.

Examples are:

<i>očka</i>	"man"	<i>ithlo</i>	"dog"	<i>feča</i>	"sun"
<i>úči</i>	"meat"	<i>klai</i>	"white man"	<i>yasa</i>	"people"
<i>fjaka</i>	"snake"	<i>čhákněša</i>	"youth"	<i>čhíjo</i>	"fish"
<i>wale</i>	"pig"	<i>khóho</i>	"hand"	<i>féhe</i>	"foot"
<i>owe</i>	"me" (masculine)	<i>awe</i>	"you"		

Sub-class NB2 has only one tagmeme, the obligatory non-possessed feminine unmarked item tagmeme (+NB2). It is manifested by a class of unmarked non-possessed, non-derived nouns that are inherently feminine in gender. Examples are:

<i>čáyi</i>	"woman"	<i>seya</i>	"virgin"	<i>oso</i>	"I" (feminine)
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Sub-class NB3 is further sub-divided into classes a and b on the basis of contrast in fillers of the gender margin tagmeme.

Sub-class NB3a has two obligatory tagmemes. The obligatory non-possessed feminine marked stem A tagmeme (+NB3a) occurs in word initial with the meaning of the item. It is manifested by a small class of marked stems which overlap with NB1. Examples are:

ɫ táke-	"clothing"	fowa-	"stone"
feya-	"earth" or "moon"	fáthowa-	"one"

The obligatory gender margin one tagmeme (+Gender Mg.1) occurs in word final and is identical to its counterpart in sub-class NA3a. This tagmeme becomes optional when followed by an attributive marked with feminine gender in Nx1.

Sub-class NB3b has two obligatory tagmemes. The obligatory non-possessed feminine marked stem B tagmeme (+NB3b) occurs in word initial with the meaning of the item. It is manifested by a small class of marked stems which overlap with NB1. Examples are:

klai-	"white man"	séǵo-	"Indian"
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The obligatory gender margin three tagmeme (+Gender Mg.3) occurs in word final with the meaning of feminine gender. It is manifested by the single perturbating suffix, 'nkya "female".

Sub-class NB4 has only one tagmeme, the obligatory irregular item tagmeme (+NB4). It is manifested by a class of inherently masculine nouns which are singular in their basic form. When the final syllable is dropped, they become plural. Examples are:

aseya	"mat"	ase	"mats"
dakkeya	"hat"	dakke	"hats"
flišiwa	"alligator"	fliši	"alligators"
féhe	"foot"	fe	"feet"
čiča	"blood"	či	"bloods"

Sub-class NB5 is further divided into sub-classes a and b on the basis of contrast in fillers of the derivational margin tagmeme.

Sub-class NB5a has two obligatory tagmemes. The obligatory noun base B1 tagmeme (+NB5a) occurs in word initial with the meaning of the item. It is manifested by a class of non-possessed, non-derived nouns that overlap with sub-class NB1.

Examples are:

séǵo	"Indian"	čhákneša	"youth"
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The obligatory derivational margin E tagmeme (+Deriv.Mg.E) occurs in word final and is identical with its counterpart in NA4a.

Sub-class NB5b has two obligatory tagmemes. The obligatory noun base B2 tagmeme (+NB5b) occurs in word initial with the meaning of the item. It is manifested by a class of non-possessed, non-derived nouns that overlap with sub-class NB1. An examples is: tóhkhaetha "ancestor".

The obligatory derivational margin F tagmeme (+Deriv.Mg.F) occurs in word final and is identical with its counterpart in NA4b.

1.2.2 The pronoun class (noun class two) is divided into two sub-classes on the basis of contrast in internal structuring and external distribution. They are united into a single class because they are all pronouns.

The personal pronoun class (N2a) manifests the tagmemes +Nx1H and ±Nx1Mg.1 in the noun phrase one, +Nx2H in the noun phrase two, ±Nx3Mg.1 in the noun phrase three, +Nx4H and ±Nx4Mg.1 in the noun phrase four, +Nx6H in the noun phrase six, ±Ax1Mg.1 in the attributive phrase one, ±Tx4Mg.1 in the time phrase four, +Px6A in the prepositional phrase six, ±Obj.Mg. in the verb phrase three and twelve, +Pr.Base in noun class 2b (N2b), +Tr.Free Sub.2 in the transitive declarative limited action sentence, ±Stat.Sub. in the stative sentence, ±Interr.Sub. and ±Interr.Obj. in the interrogative sentence types, and the +Resp.Sub. in the response sentence. It has only one tagmeme, which is the obligatory pronoun base tagmeme (+Pr.Base). It is manifested by a class of personal pronouns consisting of:

i	"first person singular"	ya	"first person plural"
a	"second person singular"	wa	"second person plural"
ta	"third person singular"	tha	"third person plural"
sa	"reflexive"		

The possessive pronoun class (N2b) manifests the +Nx1H tagmeme in the noun phrase one. It has three tagmemes as shown in the formula below:

+Pr.Base +Poss.Mg.1 +/-Gender Mg.2

The obligatory pronoun base tagmeme (+Pr.Base) occurs in word initial with the meaning of pronominal possession. It is manifested by N2a.

The obligatory possessor margin one tagmeme (+Poss.Mg.1) occurs in word medial with the meaning of a possessed item. It is manifested by the single possessional suffix, -ksa "possessed item".

The gender margin two tagmeme (+/-Gender Mg.2) occurs in word final with the meaning of feminine gender. It is obligatorily present when referring to a feminine object and obligatorily absent when referring to a masculine object. It is manifested by the single feminine inflectional suffix, -sa "feminine".

Examples:

iksa	"mine"	aksa	"yours"
iksasa	"mine" (feminine object)	aksasa	"yours" (feminine object)

Examples of Noun Classes

Pronoun prefixes which occur in the +Possr Mg. tagmemes of obligatorily possessed nouns are:

i-	"first person singular" (i- combines with a single stop or nasal to become j-)
a-	"second person singular"
e-	"third person singular"
ya-	"first person plural" (ya- becomes y- when preceding any consonant plus /o/; the consonant is lost resulting in yo)
wa-	"second person plural"
tha-	"third person plural"
se-	"indefinite person"
sa-	"reflexive"

NOUN 1

NA1		íti athfe etka	"my house" "your father" "his head"
NA2		ísa áde	"my mother" "your wife"
NA3	a.	ehši-ne	"his sister"
	b.	içasa	"my female relatives"
NA4	a.	ihší-čwa	"my brothers"
	b.	wathfa-to	"your fathers"
NA1		ithlo wale	"dog" "pig"
NA2		čáyi seya	"woman" "virgin"
NA3	a.	táke-ne fowa-ne	"female clothing" "stone"
	b.	klai-nkya séço-nkya	"white woman" "Indian woman"
NA4		aseya féhe	"mat" "foot"
NA5	a.	séço-n-dowa	"Indians (exclusive group)"
	b.	tóhkhætha-to	"ancestors (group)"

1.2.3 The derived intransitive stative noun class (N3) consists of nouns derived from intransitive verb stems. There are two sub-classes as seen in the tagmemic formulas below.

1. Derived from intransitive free verb bases:
 - a. +Sub.Mg.A +Intr.F.V.Base (N3.1) ±N.Neg.Mg. +Deriv.Mg.A
±Deriv.Tens.Mg. +/-_Gender Mg.1
 - b. +Intr.F.V.Base A (N3.1a) ±N.Neg.Mg. +Deriv.Mg.B +/-_Gender Mg.2
 - c. +Intr.F.V.Base (N3.1b) ±N.Neg.Mg. +Deriv.Mg.C
2. Derived from intransitive bound verb bases:
 - a. +Intr.B.V.Base (N3.2) ±N.Neg.Mg. +Deriv.Mg.A ±Deriv.Tens.Mg.
+/-_Gender Mg.1
 - b. +Intr.B.V.Base (N3.2) ±N.Neg.Mg. +Deriv.Mg.B +/-_Gender Mg.2

Noun class three manifests the tagmemes +Nx1H in the noun phrase one, +Nx2H in the noun phrase two, +Nx3H in the noun phrase three, +Lx4A in the locational phrase four, and +/-_Sub.Mg. in the verb phrase seven. Sub-class one is further divided into sub-classes a, b, and c on the basis of contrast in internal construction.

Sub-class 3.1.a has three obligatory tagmemes and three optional tagmemes. The obligatory subject margin A tagmeme (+Sub.Mg.A) occurs in word initial with the meaning of user of the item. It is manifested by the single indefinite person pronominal prefix, *se-* "indefinite person". On the phrase level, this tagmeme may be replaced by a subject tagmeme manifested by any simple class one noun.

The obligatory intransitive free verb base tagmeme (+N3.1) occurs in second position and gives basic meaning to the noun. It is manifested by any intransitive free verb stem.

The optional tagmeme, noun negative margin (±N.Neg.Mg.) occurs in word medial with the meaning of negating the basic meaning. It is manifested by the single suffix *-do* "negative".

The obligatory derivational margin A tagmeme (+Deriv.Mg.A) occurs in third position with the meaning of an item used according to the action of +N3.1. It is manifested by locative class four (*se* "where").

The optional tagmeme, derivational tense margin, (±Deriv.Tens.Mg.) occurs in fourth position with the meaning of past tense. It is manifested by the single suffix *-se* "past" (*-se* becomes *-s* when contracted). The meaning of this tagmeme is not always evident since it is normally included in the names of some items with no apparent reference to time. It is optional, however, since such names can be given without it.

The optional tagmeme, gender margin one, (+/-_Gender Mg.1), occurs in word final with the meaning of feminine gender. It is obligatorily present with items that are classified as feminine, and obligatorily absent with items classified as masculine. It is manifested by the single inflectional gender perturbing suffix, *ne* "feminine".

Sub-class 3.1.b has two obligatory and two optional tagmemes. The obligatory intransitive free verb base A (N3.1a) occurs in word initial and gives basic meaning to the noun. It is manifested by sub-class A of intransitive free verb stems.

Examples are: no "goes" ta "is present"

The optional tagmeme, noun negative margin (\pm N.Neg.Mg.) occurs in second position and is identical with its counterpart in N3.1.a.

The obligatory derivational margin B tagmeme (+Deriv.Mg.B) occurs in third position with the meaning of the subject of the action contained in the intransitive verb base. It is manifested by the single derivational suffix, -dowa "subject of the action" (-dowa becomes -dwa if contraction is allowed, and -do when followed by +/-Gender Mg.2).

The gender margin two tagmeme (+/_Gender Mg.2) occurs in word final with the meaning of feminine gender. It is manifested by the single inflectional perturbing gender suffix, -nkya "female". It is obligatorily present with items that are classified as feminine, and obligatorily absent with items classified as masculine.

Sub-class 3.1.C has two obligatory and one optional tagmeme.

The obligatory intransitive free verb base B tagmeme (+N3.1.b) occurs in initial position and gives basic meaning to the noun. It is manifested by sub-class B of intransitive free verb stems.

Examples are: sakčháčha "suffers" phohne "gets up"
 lumíne "dives" pdane "slips"

The optional noun negative margin (\pm N.Neg.Mg.) tagmeme occurs in word medial, and is identical with its counterpart in 3.1.a.

The obligatory derivational margin C tagmeme (+Deriv.Mg.C) occurs in word final with the meaning of the subject of the action of the filler of +N3.1.b. It is manifested by a small class of derivational perturbing suffixes consisting of: -ho "masculine subject of action"; -so "feminine subject of action".

Examples of noun class 3.1:

a.)	sekínsesne	"chair"
	sekyáesesne	"table"
	sekyáedo-séne	"where one does not eat"
b.)	tádwa	"one who is present"
	nódónkya	"one who goes" (feminine)
	nódo-dónkya	"one who does not go" (feminine)
c.)	sakčháčha-ho	"one who suffers"
	phohne-so	"one who gets up" (feminine)
	lumíne-sese	"diving place"
	sakčháčha-séne	"irritating object" (feminine)

Sub-class two is further divided into sub-classes a and b on the basis of contrast in internal construction.

Sub-class 3.2.a has two obligatory and three optional tagmemes.

The obligatory intransitive bound verb base tagmeme (+N3.2) occurs in initial position and gives basic meaning to the noun. It is manifested by any intransitive bound verb stem. The intransitive subject tagmeme in the verb stem is manifested by the single personal pronoun prefix, *se-* "indefinite person". On the phrase level, when N3.2 manifests the +Nx1H slot, the subject tagmeme may be replaced by \pm Nx1Mg.1.

Examples of N3.2 are: *ehkle-* "drives" *éw-* "walks"

The other tagmemes are all identical with their counterparts in N3.1.a.

Sub-class 3.2.b has two obligatory and two optional tagmemes.

The obligatory intransitive bound verb base tagmeme (+N3.2) occurs in word initial, and is identical with its counterpart in sub-class 3.2.a, except that the intransitive subject tagmeme in the verb stem is manifested by the single personal pronoun prefix, *e-* "it". The other tagmemes are all identical with their counterparts in N3.1.b.

Examples of noun class 3.2:

a.)	<i>sekwsesne</i>	"jug"
	<i>sekwdo-séne</i>	"not for drinking" (fem.)
b.)	<i>ehkléndónkya</i>	"automobile"
	<i>éwdowa</i>	"one who walks"
	<i>éwdodwa</i>	"one who does not walk"

1.2.4 The derived transitive stative noun class (N4) consists of nouns derived from transitive verb stems. There are two sub-classes as seen in the tagmemic formulas below:

1. Derived from transitive free verb bases:
 - a. +Tr.F.V.Base (N4.1) \pm N.Neg.Mg. +Deriv.Mg.A \pm Deriv.Tens.Mg. +/_Gender Mg.1
 - b. +Tr.F.V.Base (N4.1) \pm N.Neg.Mg. +Deriv.Mg.D
2. Derived from transitive bound verb bases:
 - a. +Obj.Mg. +Tr.B.V.Base (N4.2) \pm N.Neg.Mg. +Deriv.Tens.Mg. +/_Gender Mg.1
 - b. +Obj.Mg. +Tr.B.V.Base (N4.2) \pm N.Neg.Mg. +Deriv.Mg.D

Noun class four manifests the tagmeme +Nx4H in the noun phrase four, and +/_Sub.Mg. in the verb phrase seven.

Sub-class N4.1 is further divided into sub-classes a and b on the basis of contrast in internal construction. Sub-class 4.1.a has two obligatory and three optional tagmemes.

The obligatory transitive free verb base tagmeme (+N4.1) occurs in word initial and gives basic meaning to the noun. It is manifested by any transitive free stem.

The optional tagmeme, noun negative margin (\pm N.Neg.Mg.) occurs in second position and is identical with its counterpart in N3.1.a.

The other tagmemes are identical with their counterparts in N3.1.a.

Examples of noun class 4.1.a:	féytón-sesne	"what one works with" (feminine)
	féytóndo-séne	"what one does not work with" (fem.)
	nální-sesne	"what one paints with" (feminine)
	nálnido-séne	"what one does not paint with" (fem.)

Sub-class 4.1.b has two obligatory and one optional tagmeme.

The obligatory transitive free verb base tagmeme (+N4.1) occurs in word initial and is identical with its counterpart in N4.1.a.

The optional noun negative margin tagmeme (\pm N.Neg.Mg.) occurs in word medial and is identical with its counterpart in N.3.1.a.

The obligatory derivational margin D tagmeme (+Deriv.Mg.D) occurs in word final with the meaning of subject or object of the action of the fillers of +N4.1. It is manifested by a small class of derivational suffixes consisting of:

ʼho	"masculine subject of action"	
ʼso	"feminine subject of action"	(ʼso with verb stems that do not contract; ʼhosso with verb stems that contract)
-dowa	"object of action"	(becomes -dwa with contraction)

Examples of noun class 4.1.b:

féytón-ho	"worker"
féytóndo-ho	"one who does not work"
kéyni-so	"teacher" (feminine)
kéynido-so	"one who does not teach" (feminine)
eϕ-hoso	"laundress"
táekhdowa	"that which is thrown"
táekhdodwa	"that which is not thrown"

Sub-class 4.2 is further divided into sub-classes a and b on the basis of contrast in internal construction.

Sub-class 4.2.a has three obligatory and two optional tagmemes.

The obligatory object margin tagmeme (Obj.Mg.) occurs in word initial with the meaning of the object of the base fillers which are bound stems. It is manifested by the single personal pronoun prefix, e- "it".

The obligatory transitive bound verb base (+N4.2) occurs in second position and gives basic meaning to the noun. It is manifested by any transitive bound verb stem.

The other tagmemes are identical with their counterparts in N3.1.a.

Examples of noun class 4.2.a:	eko-sesne	"what one gives with" (feminine)
	ekodo-séne	"what one does not give with" (fem.)
	ethay-šisne	"what one carries with" (feminine)
	ethaydo-séne	"what one does not carry with" (fem.)

Sub-class 4.2.b has three obligatory and one optional tagmeme.

The obligatory tagmeme, derivational margin D (+Deriv.Mg.D) occurs in word final and is identical with its counterpart in N4.1.b.

The other tagmemes are identical with their counterparts in noun 4.2.a.

Examples of noun class 4.2.b:	ekhde-ho	"one who knows"
	eko-so	"one who gives" (feminine)
	ethaydowa	"what one carries"

1.2.5 The personal noun class (N5) manifests the +Nx5H tagmeme in the noun phrase five. It is used in direct address. There is only one tagmeme, the obligatory noun five base (+N5) which is manifested by a class of nouns (mostly names) that overlap with the simple sub-types of noun class one.

Examples are: klai "white man" kasa "daughter" and all personal names

1.2.6 The demonstrative noun class (N6) manifests the subject and object tagmemes on the sentence level, and also the +Tx1A tagmeme in the time phrase one. There is only one tagmeme, the obligatory noun six base (+N6), which is manifested by the single word, ného "this".

1.3 ATTRIBUTIVES

The attributive hyperclass consists of nine classes of attributives. The first of these, A1, is divided into two sub-classes on the basis of obligatorily possessed versus non-possessed stems, and each of these is further sub-divided on the basis of external distribution. A2 is divided into two sub-classes on the basis of contrast in external distribution. A3 is divided into three sub-classes on the basis of contrast in internal construction. A5 and A6 are each divided into two sub-classes on the basis of contrast in internal construction. The attributive classes are not so closely related to each other as is the case within the verb and noun hyperclasses, but they are united into one hyperclass because they function similarly as modifiers of nouns. They are in separate classes because they manifest different tagmemes on the phrase level.

Attributive classes, sub-classes, and tagmemic formulas are given below:

A1 General:

- | | | | |
|----|----------------|----|--------------------------------------|
| a. | Non-possessed: | 1. | +A1 stem 1 +/_A.Gender Mg. |
| | | 2. | +A1 stem 2 +/_A.Gender Mg. |
| b. | Possessed: | 1. | +A.Pr.Mg. +A1 stem 3 +/_A.Gender Mg. |
| | | 2. | +A.Pr.Mg. +A1 stem 4 +/_A.Gender Mg. |

- A2 Demonstrative:
 a. +Dem.stem (A2a) +/_Dem.Gender Mg.
 b. +Dem.suffix (A2b)
- A3 Possessional:
 a. +Poss.Pr.Base 1
 b. +Poss.Pr.Base 1 +Poss.Mg.1
 c. +Poss.Pr.Base 2 +Poss.Mg.2
- A4 Limitive: +Lim.Base (A4)
- A5 Comparative:
 a. +Comp.Base (A5a) A
 b. +Comp.Base B (A5b) +/_Gender Mg.2
- A6 Quantitative:
 a. +Quant.Base A (A6a) +/_A.Gender Mg.
 b. +Quant.Base B (A6b)
- A7 Emphasis: +Emph.Base (A7)
- A8 Conditional: +Cond.Base (A8)
- A9 Double Function Interrogative: +D.F.Base (A9)

1.3.1 The general attributive class (A1) manifests the tagmemes $\pm N \times 1 \text{Mg.1}$ and $\pm N \times 1 \text{Mg.3}$ in the noun phrase one, $\pm N \times 2 \text{Mg.2}$ in the noun phrase two, $\pm N \times 3 \text{Mg.4}$ in the noun phrase three, $\pm N \times 4 \text{Mg.5}$ in the noun phrase four, $\pm N \times 5 \text{Mg.}$ in the noun phrase five, +Desc.Mg. in verb classes five and six, +Sub.Mg. in the verb phrase one, +Tx3A in the time phrase three, $\pm T \times 4 \text{Mg.2}$ in the time phrase four, and $\pm UAV \times \text{Mg.1}$ in unlimited action sentences. It is divided into two sub-classes on the basis of non-possessed versus obligatorily possessed stems.

Sub-class (a) contains non-possessed attributives. It has two tagmemes. The obligatory attributive one stem one (+A1 stem 1) tagmeme occurs in word initial with the modifying meaning of the stem. It is manifested by a class of free form attributives. This class is further divided into sub-classes one and two on the basis of occurrence as fillers of the +Desc.Mg. tagmeme in the descriptive verb classes five and six. In this tagmeme, sub-class A.1.a.1 requires the presence of verb stem eleven, whereas sub-class A.1.a.2 occurs without verb stem eleven. The only internal difference is the class of stems manifesting the obligatory A1 stem tagmeme.

Examples:

Sub-type A.1.a.1:	klehe	"first"	támtea	"second"	yowa	"well"
	lya	"holy"	éfaekhla	"old"		
Sub-type A.1.a.2:	čhíčhía	"black"	táeya	"narrow"		

The attributive gender margin tagmeme (+/_A.Gender Mg.) occurs in word final with the meaning of feminine gender. It occurs in agreement with the gender of the noun which the attributive modifies. It is manifested by the single gender perturbing suffix, *´ne* "feminine".

Sub-class (b) contains obligatorily possessed attributives. It has three tagmemes.

The obligatory attributive pronominal margin tagmeme (+A.Pr.Mg.) occurs in word initial with the meaning of a subject of the stem. The toneme is an intrinsic part of the slot rather than the filler. It is manifested by the personal pronoun prefix class (see list under verb stems), or by the filler of the noun phrase head tagmeme.

The obligatory attributive one stem three tagmeme (+A1 stem 3) occurs in second position with the modifying meaning of the stem. It is manifested by a class of bound stem attributives. These bound stems are further divided into sub-classes one and two on the same basis as 1.3.1.a.

Examples are:

Sub-class A.1.b.1: -č_{ae}a "yellow" -č_{lae}a "red" -so "other"

Sub-class A.1.b.2: -há_{es}a "big" -kka "small"

The attributive gender margin tagmeme (+/_A.Gender Mg.) occurs in word final and is identical with its counterpart in sub-class (a).

1.3.2 The demonstrative attributive class (A2) is divided into two sub-classes on the basis of contrast in external distribution.

Sub-class (a) manifests the tagmemes ±N_x1Mg.1 and ±N_x1Mg.3 in the noun phrase one, +L_x1A in the location phrase one, +T_x1A in the time phrase one, and ±T_x4Mg.1. There are two tagmemes.

The obligatory demonstrative stem tagmeme (+A2a) occurs in word initial with the meaning of specification. It is manifested by a class of demonstrative attributives.

Examples are:

owa "this" č_iwa "that" taya "that which is ahead"
d_ina "coming" č_hán_{ow}a "yonder" nyó_{ne} "that which is past"

The demonstrative gender margin tagmeme (+/_Dem.Gender Mg.) occurs in word final with the meaning of feminine gender. This tagmeme has the purpose of maintaining gender agreement, so that in noun phrase one, a feminine filler of the +N_x1H slot is obligatory to its occurrence. It is manifested by the perturbing gender suffix, ́_tosa "feminine" (becomes ́_tsa with contraction).

Sub-class (b) manifests the tagmeme, verb phrase margin five (±V_xMg.5) in the verb phrases. It has only one tagmeme, the obligatory demonstrative suffix tagmeme (+A2b). It is used to express incompleteness of thought, and indicates that more conversation will follow. It is manifested by a single perturbing suffix, ́_he "that".

1.3.3 The possessional attributive class (A3) is divided into three sub-classes on the basis of differing internal formulas and fillers, and contrast in external distribution. With some speakers there is free fluctuation between sub-classes (b) and (c).

Sub-class (a) has only one tagmeme, the obligatory possessor pronoun base one tagmeme (+Poss.Pr.Base 1), which is manifested by a class of personal pronoun prefixes (see 1.1). Sub-class (a) manifests the +Possr.Mg. tagmeme of bound noun stems.

Sub-class (b) has two obligatory tagmemes. It manifests the $\pm N \times 1 \text{Mg.1}$ tagmeme in $N \times 1$ when the head tagmeme is manifested by a free stem beginning with a consonant.

The obligatory possessor pronoun base one tagmeme (+Poss.Pr.Base 1) occurs in word initial and is identical with that of sub-class (a).

The obligatory possessional margin one tagmeme (+Poss.Mg.1) occurs in word final. It is manifested by the single suffix $-h$ "free stem possession".

Sub-class (c) has two obligatory tagmemes. It manifests the $\pm N \times 1 \text{Mg.1}$ tagmeme in $N \times 1$ when the head tagmeme is manifested by a free stem beginning with a vowel.

The obligatory possessor pronoun base two tagmeme (+Poss.Pr.Base 2) occurs in word initial with the meaning of pronominal possession. It is manifested by noun class two (a).

The obligatory possessor margin two tagmeme (+Poss.Mg.2) occurs in word final with the meaning of possession. It is manifested by the single possessional suffix, $-ke$ "possessor".

1.3.4 The limitive attributive class (A4) manifests the $\pm N \times 1 \text{Mg.7}$ tagmeme in the noun phrase one, $+T \times 2 \text{Mg.}$ in the time phrase two, and $\pm T \times 4 \text{Mg.2}$ in the time phrase four. There is only one tagmeme, the obligatory limiter base (+A4) tagmeme, which has the meaning of limiting the noun that it modifies. It is manifested by a class of attributive suffixes consisting of:

$\acute{c}na$ "only" $\acute{c}d\acute{e}yi$ "each" $-hti$ "much"

1.3.5 The comparative attributive class (A5) manifests the $\pm N \times 6 \text{Mg.}$ tagmeme in the noun phrase six. It is sub-divided into classes a and b on the basis of contrast in basic form and internal construction.

Sub-class A.5.a contains only one tagmeme, the obligatory comparative base A (+A5a) tagmeme, which has the meaning of comparative modification. It is manifested by a class of comparative attributive words consisting of:

$th\acute{o}\acute{c}wa$ "like" or "resembling" $kes\acute{e}yi$ "as though"
 $kh\acute{o}f\acute{e}ny\acute{a}$ "for" or "on behalf of"

Sub-class A.5.b contains two tagmemes.

The obligatory comparative base B tagmeme (+A5b) occurs in word initial with the meaning of comparative identification. It is manifested by the single perturbing suffix, $\acute{c}\acute{a}$ "made of" or "consisting of".

The gender margin two tagmeme (+/_Gender Mg.2) occurs in word final and is identical with its counterpart in noun 1.2.2.b.

1.3.6 The quantitative attributive class (A6) manifests the tagmemes $+N \times 1 \text{H}$ and $\pm N \times 1 \text{Mg.4}$ in the noun phrase one, $\pm N \times 3 \text{Mg.6}$ in the noun phrase three, $\pm N \times 4 \text{Mg.7}$ in the noun phrase four, $\pm N \times 3 \text{Mg.6}$ in the noun phrase three, $+N \times 4 \text{Mg.7}$ in the noun phrase four, $\pm T \times 4 \text{Mg.2}$ in the time

phrase four, and ±Lx6Mg.2 in the location phrase six. It is divided into two sub-classes on the basis of differing internal formulas.

Sub-class (a) has two tagmemes. The obligatory quantitative base A tagmeme (+A6a) occurs in word initial with the meaning of number. It is manifested by the single perturbing numeral suffix ʹfthowa "one" (becomes ʹftha before +/_A.Gender Mg.).

The attributive gender margin tagmeme +/_A. Gender Mg.) occurs in word final and is identical with its counterpart in A.1.a.

Examples of Attributive Classes

Pronoun prefixes which fill the +A.Pr.Mg. tagmeme are the same as those used in nouns. See page 22.

A1b	1.	eçaea	"yellow"	ečlaea	"red"
	2.	ehaésa	"big"	ekka	"small"
A2	a.	owa	"this" (masc.)	čiwa	"that" (masc.)
		ow-tosa	"this" (fem.)	čiw-tosa	"that" (fem.)
	b.	(ta nekase-de) -he	"he said then that..."		
			"that"		
A3	a.	i	"my"	ya	"our"
		a	"your"	wa	"your" (pl.)
		e	"his"	tha	"their"
		sa	"reflexive poss."		
	b.	ih	"my"	yah	"our"
		ah	"your"	wah	"your" (pl.)
		eh	"his"	thah	"their"
		sah	"reflexive poss."		
	c.	ike	"my"	yake	"our"
		ake	"your"	wake	"your" (pl.)
		take	"his"	thake	"their"
		sake	"reflexive poss."		
A4		(owe) -na	"only me"		
		(yahdédwa) -déyi	"each boy"		
A5	a.	thóčwa	"like"	keséyi	"at though"
	b.	(ihfe) -ça	"of my country"		
		(ihfé) -çasa	"female of my country"		
A6	a.	(čáyi) -ftha-ne	"one woman"		

	b.	(čáyi) tkáno	"two women"
A7		(ekka) -wa	"very small"
A8		(púti) -jwa	"pot full"

Sub-class (b) has only one tagmeme, the obligatory quantitative base two tagmeme (+A6b). It has the meaning of number, and is manifested by a class of numeral attributives.

Examples are:

tkáno	"two"	lišino	"three"	sáto	"plural"
ktowa	"all"	khla	"many"		

1.3.7 The emphasis attributive class (A7) manifests the tagmemes $\pm N \times 1 \text{Mg.6}$ in the noun phrase one, $\pm N \times 3 \text{Mg.5}$ in the noun phrase three, $\pm N \times 4 \text{Mg.6}$ in the noun phrase four, $\pm T \times 4 \text{Mg.3}$ in the time phrase four, $\pm \text{Adv.} \times 1 \text{Mg.1}$ in the adverbial phrase one, and $\pm \text{UAV} \times \text{Mg.1}$ in the unlimited action sentences. Class A7 contains only one tagmeme, the obligatory emphasis base (+A7), which has the meaning of emphasis. It is manifested by the single emphasis perturbing suffix, \acute{c} -wa "augmentative" or "diminutive".

1.3.8 The conditional attributive class (A8) manifests the tagmeme $\pm N \times 1 \text{Mg.5}$ in the noun phrase one. It has only one tagmeme, the obligatory conditional base (+A8), which has the meaning of giving conditional modification to the noun that it modifies. It is manifested by a class of conditional attributives consisting of:

\acute{c} -jwa	"full"	ϕ eáni	"free" or "loose"
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1.3.9 The double function interrogative attributive class (A9) manifests the +Interr.Base 2 tagmeme in interrogative sentences, and the +Desc.Interr. tagmeme in the descriptive interrogative sentence type four. It contains only one tagmeme, the obligatory double function base (+A9), which is manifested by a class of double function interrogative words.

Examples are:

to	"what"	tonána	"how much"	tóte	"which"
unáke	"which"	unáyi	"where"	tokéke	"why"
nášna	"who"	tóke	"who"	tonánte	"how many"
nášto	"which"				

1.4 TEMPORALS

The temporal hyperclass consists of nine classes of time words or suffixes which contrast with one another in the tagmemes which they manifest. Class two is sub-divided on the basis of external distribution, class three is sub-divided on the basis of internal formula of fillers, and class eight is sub-divided on the basis of differing fillers and external distribution. Temporal classes, sub-classes, and tagmemic formulas are given below:

- T1 +T1 Base (T1)
- T2 Derived: a.) +T2a Base (T2a) +T2 Deriv.Mg.
 b.) +T2b Base (T2b) +T2 Deriv.Mg.
- T3 a.) +T3a Base (T3a)
 b.) +Poss.Mg. +T3b Base (T3b)
- T4 +T4 Base (T4)
- T5 +T5 Base (T5)
- T6 +T6 Base (T6)
- T7 +T7 Base (T7)
- T8 a.) +T8a Base (T8a)
 b.) +T8b Base (T8b)
 c.) +T8c Base (T8c)
- T9 +T9 Base (T9)

1.4.1 Temporal class one manifests the tagmemes +Tx1A in the time phrase one, +Tx2H in the time phrase two, and +Tx4H in the time phrase four. It consists of time words which are non-derived, non-possessed and have no internal markers of any kind. They overlap with noun class one. There is only one tagmeme, the obligatory time one base (+T1).

Examples are:

feya	"month"	feča	"year"
sčaya	"day"	fthaeya	"night"

1.4.2 Temporal class two consists of time words which are derived from descriptive time stems. It is divided into two sub-classes on the basis of contrast in external distribution.

Sub-class (a) manifests the tagmemes +Tx2H in the time phrase two, and +Tx4H in the time phrase four. There are two obligatory tagmemes. The tagmemic formula is shown above.

The obligatory tagmeme, time two (a) base (+T2a) occurs in word initial with the meaning of the basic time. It is manifested by a group of descriptive time stems consisting of:

ohni-	"today"	sóh-	"tomorrow"
únti-	"yesterday"	antúnti-	"day before yesterday"

The obligatory tagmeme, time two derivational margin (+T2 Deriv.Mg.), occurs in word final with the meaning of time orientation. It is manifested by the single time two perturbing suffix, *čma* "when".

Sub-class (b) manifests the tagmeme +Tx2Mg. in the time phrase two. There are two obligatory tagmemes as seen in the tagmemic formula above.

The obligatory tagmeme, time two B base (+T2b) occurs in word initial with the meaning of the basic time. It is manifested by the single time stem, sóndo- "early".

The obligatory tagmeme, time two derivational margin (+T2 Deriv.Mg.), occurs in word final, and is identical with its counterpart in sub-class A.

1.4.3 Temporal class three manifests the tagmemes +Tx1A in the time phrase one, +Tx4H and ±Tx4Mg.1 in the time phrase four. It consists of time words which are non-derived, and is divided into two sub-classes on the basis of contrasting internal formulas.

Sub-class (a) is optionally possessed. There is only one tagmeme, the obligatory time three A base (+T3a), which is manifested by a group of time words.

Examples are:

khaeta	"beginning"	klehe	"first"	támtea	"second"
toke	"middle"	nekte	"then"		

Sub-class (b) is obligatorily possessed. There are two obligatory tagmemes as seen in the tagmemic formula given above.

The obligatory possessor margin tagmeme (+Poss.Mg.) occurs in initial position with the meaning of possessive modification. It is manifested by the single prefix, e- "its", or by any member of noun class one.

The obligatory time three B base tagmeme (T3b) occurs in word final with the meaning of the basic time. It is manifested by the single time stem, ʼhjo "end".

1.4.4 Temporal class four consists of time suffixes which manifest the tagmemes +Tx3R in the time phrase three, and +Conj.2Mg. in the conjunction class 2b. There is only one tagmeme, the obligatory time four base (+T4), which is manifested by the following suffixes:

ʼma	"when"	ʼsesde	"after"	(becomes ʼses- when followed by -déyi "each time")
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1.4.5 Temporal class five consists of time words and suffixes which manifest the tagmemes +Tx2Mg. in the time phrase two, ±VxMg.3 in the verb phrases, +Lx1R in the locational phrase one, and +RxMg.2 in the reason phrase. There is only one tagmeme, the obligatory time five base (+T5). The class consists of:

thúwi	"while"	hle	"now" or "already"	
ʼhetéyi	"before"	ʼyi	"when"	(ʼwi following back vowels, ʼyi following all others)

T4	(jo) -ma (ikyaeh) -sesde	"when I go" "after I eat"
T5	(taka) hle (kfafka) -hetéyi	"he is here now" "before sleeping"
T6	(fthaeya) -sa	"at night"
T7	(noka hle) -de	"he goes now then..."
T8	a. (taka) se (taka) -he b. (kfafa) se (kfafa) -ne c. (kfafa) khiyaka	"he was here" "he will be here" "slept" "will sleep" "was sleeping" (distant past)
T9	sóča sótko	"late" "sunset"

1.5 LOCATIVES

The locative hyperclass consists of eight classes of locative words and suffixes which contrast with one another in the tagmemes which they manifest. The first four classes are simple in structure, while classes five through seven are derived forms. Class eight is non-derived and is of complex structure. Locative classes and tagmemic formulas are given below:

Simple:	L1 – +L1 Base (L1)
	L2 – +L2 Base (L2)
	L3 – +L3 Base (L3)
	L4 – +L4 Base (L4)
Derived:	L5 – +L5 Base (L5) +Loc.Orient.Mg.1
	L6 – +L6 Base (L6) +Loc.Orient.Mg.2
	L7 – +Loc.Orient.Mg.3 +L7 Base (L7)
Complex:	L8 – +Loc.Obj. +L8 Base (L8)

1.5.1 Locative class one consists of simple location words which are non-derived, non-possessed, and have no internal markings of any kind. They manifest the location tagmeme on the sentence level, and the +Lx2A tagmeme of location phrase two. There is only one tagmeme, the obligatory location one base (+L1).

Examples are:

úfa "here" thoya "outside" kose "outside house"

1.5.2 Locative class two consists of a simple location perturbing suffix. It manifests the +Lx2R tagmeme in the location phrase two. There is only one tagmeme, the obligatory location two base (+L2), which is manifested by the single filler:

´nana "toward"

1.5.3 Locative class three consists of a simple location perturbing suffix. It manifests the ±Loc.Mg. tagmeme in the intransitive imperative sentence. There is only one tagmeme, the obligatory location three base (+L3), which is manifested by the single filler:

´na "here"

1.5.4 Locative class four consists of a simple location perturbing suffix. It manifests the tagmeme +Lx4R in location phrase four. There is only one tagmeme, the obligatory location four base (+L4), which is manifested by the single filler:

´se "where"

1.5.5 Locative class five consists of a group of location words derived from locative stems. It contrasts with class seven in external distribution, and in the fillers of the location orientation margin tagmeme. Class five manifests the location tagmeme on the sentence level. There are two obligatory tagmemes.

The obligatory location five base tagmeme (+L5) occurs in word initial with the meaning of basic location. It is manifested by:

ow- "this" teh- "inside"

The obligatory location orientation margin one tagmeme (+Loc.Orient.Mg.1) occurs in word final with the meaning of location orientation. It is manifested by preposition class one.

Examples of locative class five are:

owke "here" tehke "inside"

1.5.6 Locative class six consists of a group of location words derived from nouns or attributives. It manifests the location tagmeme on the sentence level, and the tagmeme +Lx3R in the location phrase three. There are two obligatory tagmemes.

The obligatory location six base tagmeme (+L6) occurs in word initial with the meaning of basic direction. It is manifested by a class of words which are either noun one or attributive two.

Examples are:

féya "base" čhoka "back" čhánwa "yonder"

The obligatory location orientation margin two tagmeme (+Loc.Orient.Mg.2) occurs in word final with the meaning of locational orientation. It is manifested by the single perturbing suffix, *ƚkhdi* "that direction".

Examples of locative class six are:

fékhdi "under" *čhokákhdi* "behind" *čhánúkhdi* "beyond"

1.5.7 Locative class seven consists of a group of words derived from locative stems. It contrasts with class five in external distribution and in the fillers of the location orientation margin tagmeme. This class manifests the location tagmeme on the sentence level. There are two obligatory tagmemes.

The obligatory location orientation margin three tagmeme (+Loc.Orient.Mg.3) occurs in word initial with the meaning of location orientation. It is manifested by locative stems:

kol- "behind" *teh-* "inside".

The obligatory location seven base tagmeme (+L7) occurs in word final with the meaning of basic location. It is manifested by the single filler: *-khisi* "house".

Examples of class seven are:

kolkhisi "behind house" *tekhkisi* "inside house"

1.5.8 Locative class eight manifests the +Lx6H tagmeme in location phrase six. It consists of location words which are complex in structure. There are two obligatory tagmemes.

The obligatory location object tagmeme (+Loc.Obj.) occurs in word initial with the meaning of the goal or object of the locational orientation. It is manifested by noun class 2a. In the location phrase six this tagmeme may be replaced by ±Lx6Mg.1.

The obligatory location eight base tagmeme (+L8) occurs in word final with the meaning of locational orientation. It is manifested by the location eight stem, *-čke* "after".

The class consists of: *ečke* "after it"

1.6 PREPOSITIONS

The preposition hyperclass consists of eight classes of preposition words and suffixes which contrast with one another in external distribution. They are all simple forms, each containing only one tagmeme, which is the preposition base.

1.6.1 Preposition class one manifests the tagmemes +Con.2Mg. in the conjunction word class two (b), +Tx1R in the time phrase one, +Lx1R in the location phrase one, and +Px1R in the prepositional phrase one. The class consists of only one filler: *-ke* "in", "on", "to".

1.7.2 Conjunction class two (Con.2) manifests the tagmemes +Cx2 Base in the conjunction phrase two, and +Cx3Mg. in the conjunction phrase three. There are two sub-classes:

Sub-class (a) contains only one tagmeme, the obligatory conjunction one base (+Con.1 Base). It is manifested by the following words:

khónefáwn, nefáwn, máyi - all meaning "but"

Sub-class (b) consists of derived forms. There are two obligatory tagmemes as seen in the tagmemic formula below:

+Con.2 Base +Con.2 Mg.

The obligatory tagmeme, conjunction two margin (+Con.2 Base) occurs in word initial with the basic meaning of conjunction. It is manifested by né or nēw (short forms of ného "this").

The obligatory tagmeme, conjunction two margin (+Con.2 Mg.) occurs in word final with the meaning of temporal orientation. It is manifested by temporal class four and preposition class one.

Examples of conjunction class 2b are:

néma "and" nésesde "afterward" or "later"
 nēwke, néske, néwske - all meaning "with this" or "then"

1.8 ADVERBS

The adverb hyperclass manifests the manner tagmeme on the sentence level and the tagmeme +Adv.x1H in the adverbial phrase one. There are two classes, simple and derived.

1.8.1 Simple adverbs are non-possessed and non-derived words containing only one tagmeme, the obligatory adverb head (+Adv.H).

Examples are:

šthánha	"alone"	lahe	"also"
lahéle	"also"	íle	"too"
saséyi	"again" or "same way"	sése	"again"
kaske or saske	"again"	ehkléte	"accidentally"
çasénte	"suddenly"	tehchikne	"satisfactorily"
ktiya	"with difficulty"	saéna	"equally"
fáthwnetkwe	"one by one"		

1.8.2 Derived adverbs contain two obligatory tagmemes, as seen in the formula:

+Adv.Act. +Adv.Deriv.Mg.

The obligatory adverbial action tagmeme (+Adv.Act.) occurs in word initial with the basic meaning of the adverb. It is manifested by verb classes 1 or 3.

The obligatory adverbial derivational margin tagmeme (+Adv.Deriv.Mg.) occurs in word final. It is manifested by the single perturbing suffix, *ín* "adverbial modification".

Examples:

khókkya-ín "crying" eyónkya-ín "thankfully"

1.9 PARTICLES

The particle hyperclass consists of four classes of simple words which are grouped together into one hyperclass on the basis of their common internal structuring; they are non-derived and non-possessed words. They are: 1. Response, 2. Greeting, 3. Exclamation, and 4. Uncertainty words.

1.9.1 The response particle class (Pt.1) manifests the tagmeme +Resp. in the non-predicate response sentence. The class consists of:

anhán "yes" íyo "no" sáde "agreement"

1.9.2 The greeting particle class (Pt.2) manifests the tagmeme +Salut. in the vocative sentence. The class consists of:

aéyi "greeting"

1.9.3 The exclamation particle class (Pt.3) manifests the tagmeme +Exc. in the exclamation sentence. The class consists of:

yaánkya "exclamation" (women only) kúh "exclamation" (men only)

1.9.4 The uncertainty particle class (Pt.4) manifests the uncertainty tagmeme on the sentence level. The class consists of:

khiwa "perhaps"

1.10 QUESTIONS

The question hyperclass consists of two classes of question forms. The first class contains a single perturbing suffix, while the second class contains question words. They contrast in external distribution.

1.10.1 Question class one manifests the tagmeme +Interr.Base 1 in the interrogative sentences, and +QxInterr.Mg. in question phrases. It contains only one tagmeme, the obligatory question one base (+Q1 Base). Class one consists of:

ínma "question"

1.10.2 Question class two manifests the tagmeme +Interr.Base 3 in the interrogative sentences. It contains only one tagmeme, the obligatory question two base (+Q2 Base). Class two consists of:

áko, ádae, ae - all meaning "Isn't that right?"

2. PHRASE

The phrase is defined as a sequence or potential sequence of two or more words which function as a unit. In some cases a phrase may consist of a sequence of word and phrase level suffix, in which case a single word may constitute a phrase (see 2.1.6 for example). The term "potential sequence" refers to group (1) phrases, which have as nucleus a minimum of one obligatory tagmeme, such as phrase head; the term "sequence" to group (2) phrases, which have as nucleus a minimum of two tagmemes, such as axis and relator. Type one has satellite optional tagmemes. Type two is analyzed as not having satellite tagmemes, but at times the axis tagmeme is manifested by other phrases of type 1.

The phrase fills a slot at sentence level (most commonly), within another phrase structure, or within a word. Phrase types are grouped together into hyperclasses in the same way as words, according to external distribution and internal structuring. The primary division follows closely that of word hyperclasses: verb phrase, noun phrase, attributive phrase, time phrase, locational phrase, prepositional phrase, conjunction phrase, adverbial phrase, purpose phrase, reason phrase, and question phrase.

2.1 Verb Phrase

The verb phrase hyperclass consists of thirteen classes of verb phrases, the first eleven of which parallel the eleven classes of verbs. Each of these verb phrases manifests the predicate tagmeme in each of the first eleven sentence types respectively; thus the intransitive declarative verb phrase (Vx1) manifests the tagmeme +Intr.Dec.Pr. in the intransitive declarative sentence. Also verb phrases 1, 3, and 5 manifest the tagmeme +Px3A in the prepositional phrase three, and verb phrases 2, 4, and 6 manifest the tagmemes +Px4A in the prepositional phrase four, and +Px5A in the prepositional phrase five. Verb phrase twelve manifests the +St.Pr. tagmeme in the stative sentence. Verb phrase thirteen manifests the +Intent.Pr. tagmeme in the intentional declarative sentence. All verb phrases are group (1) types, having obligatory nucleus tagmeme, verb phrase head, and optional satellite tagmemes. Each verb phrase is now described.

2.1.1 The intransitive declarative limited action verb phrase (Vx1) manifests the tagmemes +Intr.Dec.L.A.Pr. in the intransitive declarative limited action sentence and in the intransitive interrogative type three sentence, and ±Nx4Mg.3 in the noun phrase four. The internal structure of verb phrase one is shown in the following formula:

$$\pm\text{Sub.Mg.} +\text{Vx1H} \pm\text{L.A.VxMg.1} \pm\text{VxMg.2} \pm\text{VxMg.3} \pm\text{VxMg.4} \pm\text{VxMg.5}$$

The obligatory tagmeme, verb phrase one head (+Vx1H) occurs in second position, and is manifested by the intransitive declarative limited action verb class (V1).

The optional tagmeme, subject margin (±Sub.Mg.) occurs in phrase initial and is manifested by the noun phrase one (Nx1), or attributive class one. Normally, when the subject margin tagmeme is present it replaces the intransitive subject tagmeme of bound verb stems.

The optional tagmeme, limited action verb phrase margin one ($\pm L.A.VxMg.1$) occurs immediately following the verb phrase head and has the function of modifying the action of the main verb. It is manifested by certain members of verb class one, notably:

noka "goes" teka "continues" yoka "goes well"

and by verb phrase ten.

The optional tagmeme, verb phrase margin two ($\pm VxMg.2$) occurs in second position following the verb phrase head, and has the function of tense inflection. It is manifested by temporal class 8a. The absence of this tagmeme indicates present tense unless otherwise indicated by verb suffixes on the word level.

The optional tagmeme, verb phrase margin three ($\pm VxMg.3$) occurs in third position following the verb phrase head, and has the function of temporal modification of the verb action. It is manifested by temporal class 5.

The optional tagmeme, verb phrase margin four ($\pm VxMg.4$) occurs in fourth position following the verb phrase head and has the function of indicating sequence of action. It is manifested by temporal class 7.

The optional tagmeme, verb phrase margin five ($\pm VxMg.5$), occurs in fifth position following the verb phrase head, and has the function of indicating incompleteness of thought. It is manifested by attributive class 2b.

An example of Vx1 is:

S	H	1	2	3	4	5	
	yaánkya	ehkkya-y	kase	hle-de-he			"everything went well..."
							"thing-run-well-past-now-then-that"

2.1.2 This intransitive declarative unlimited action verb phrase (Vx2) manifests the tagmemes +Intr.Dec.U.A.Pr. in the intransitive declarative unlimited action sentence, +Interr.Pr. in the intransitive interrogative sentence, +Resp.Pr. in the intransitive response sentence, and +Tx3A in the time phrase three. The internal structure of Vx2 is shown in the following formula:

$\pm Sub.Mg. +Vx2H \pm U.A.VxMg.1 \pm U.A.VxMg.2 \pm VxMg.3 \pm VxMg.4 \pm VxMg.5$

The obligatory tagmeme, verb phrase two head ($+Vx2H$) occurs in second position, and is manifested by the intransitive declarative unlimited action verb class (V2). When the optional tagmeme $\pm U.A.VxMg.1$ occurs, the $+Vx2H$ is manifested by V1, in which case the concept of unlimited action is expressed in the $\pm U.A.VxMg.1$ tagmeme.

The optional tagmeme, unlimited action verb phrase margin one ($\pm U.A.VxMg.1$), occurs in third position with the function of modifying the action of the main verb. It is manifested by certain members of verb class 2 (notably no "goes" and teh "always"), and attributive classes one and seven.

The optional tagmeme, unlimited action verb phrase margin two ($\pm U.A.VxMg.2$), occurs in fifth position with the meaning of tense inflection. It is manifested by temporal class 8b.

The other optional verb phrase marginal tagmemes are all identical with their counterparts in Vx1.

Examples of Vx2 are:

S	H	
yasa	či	"people come"

H	1	
éwka	-no	"he walks goes"

2.1.3 The transitive declarative limited action verb phrase (Vx3) manifests the tagmemes +Tr.Dec.L.A.Pr. in the transitive declarative limited action sentence, and the transitive interrogative sentence, and the +Ax1H in the attributive phrase one. The internal structure of Vx3 is shown in the following formula:

$\pm\text{Obj.Mg.} +\text{Vx3H} \pm\text{VxMg.2} \pm\text{VxMg.3} \pm\text{VxMg.4} \pm\text{VxMg.5}$

The obligatory tagmeme, verb phrase three head (+Vx3H), occurs in second position and is manifested by the transitive declarative limited action verb (V3).

The optional tagmeme, object margin ($\pm\text{Obj.Mg.}$) occurs in phrase initial and is manifested by noun classes one or 2a.

The other optional verb phrase marginal tagmemes are all identical with their counterparts in Vx1.

An example of Vx3 is:

O	H	1	2	3	4	5
flíthiya	táfnika	-nokase	hle	-de	-he	
"rain-sends-goes-past-now-then-that"						
"then he was sending rain..."						

2.1.4 The transitive declarative unlimited action verb phrase (Vx4) manifests the tagmemes +Tr.Dec.U.A.Pr. in the transitive declarative unlimited action sentence, +Tr.Interr.Pr. in transitive interrogative sentence type one, +Tr.Resp.Pr. in transitive response sentence, and +Tx3A in the time phrase three. The internal structure of Vx4 is shown in the following formula:

$\pm\text{Obj.Mg.} +\text{Vx4H} \pm\text{U.A.VxMg.1} \pm\text{U.A.VxMg.2} \pm\text{VxMg.3} \pm\text{VxMg.4} \pm\text{VxMg.5}$

The obligatory tagmeme, verb phrase four head (+Vx4H) occurs in second position, and is manifested by the transitive declarative unlimited action verb class (V4). When the optional tagmeme $\pm\text{U.A.VxMg.1}$ occurs, the +Vx4H is manifested by V3, in which case the concept of unlimited action is expressed in the $\pm\text{U.A.VxMg.1}$ tagmeme.

The other optional marginal tagmemes are all identical with their counterparts in Vx2.

Examples of Vx4 are:

O	H	
fǎka	náha	"sees a snake"

O H 1
fjaka fučkya-no "goes catching a snake"

2.1.5 The descriptive declarative limited action verb phrase (Vx5) manifests the tagmemes +Desc.Dec.L.A.Pr. in the descriptive declarative limited action sentence, and descriptive interrogative sentence. The internal structure of Vx5 is shown in the following formula:

+Vx5H ±L.A.VxMg.1 ±VxMg.2 ±L.A.VxMg.3 ±VxMg.4 ±VxMg.5

The obligatory verb phrase five head tagmeme (+Vx5H) occurs in phrase initial with the meaning of description. It is manifested by the descriptive declarative limited action verb class (V5).

All optional margin tagmemes are identical with their counterparts in Vx1.

Examples of Vx5 are:

	H 2 3 4 5	
	háesakase hle-de-he	"then it was big..."
	"it-big-lim-past-now-then-that"	
	H	
	tílsínkya	"it is pretty"

2.1.6 The descriptive declarative unlimited action verb phrase (Vx6) manifests the tagmemes +Desc.Dec.U.A.Pr. in the descriptive declarative unlimited action sentence and the descriptive interrogative sentence. The internal structure of Vx6 is shown in the following formula:

+Vx6H ±U.A.VxMg.1 ±VxMg.2 ±U.A.VxMg.3 ±VxMg.4 ±VxMg.5

The obligatory verb phrase six head tagmeme (+Vx6H) occurs in phrase initial with the meaning of description. It is manifested by the descriptive declarative unlimited action verb class (V6).

All optional margin tagmemes are identical with their counterparts in Vx3.

Examples of Vx6 are:

	H 2	
	eflíwase	"it was slight"
	"it was slight"	
	H 3 k	
	likhí hle-de	"now it is ugly"
	"ugly-now-then"	

2.1.7 The conditional declarative verb phrase (Vx7) manifests the tagmeme +Cond.Dec.Pr. in the conditional declarative sentence. The internal structure of Vx7 is shown in the following formula:

+/_Sub.Mg. +Vx7H ±VxMg.2 ±VxMg.3 ±VxMg.4

The subject margin tagmeme (+/_Sub.Mg.) occurs in phrase initial with the meaning of the subject. It is obligatorily present when +Vx7H is filled by verb stem five, and optional when +Vx7H is filled by verb stem six. When it occurs with verb stem six, it replaces the filler of the bound stem subject tagmeme (+Cond.Sub.). When +Vx7H is manifested by verb stem five, the subject tagmeme is manifested by noun classes one, two, three, or four, except that the only member of noun class two occurring in the tagmeme is the personal reflexive pronoun, sa

"himself". When +Vx7H is manifested by verb stem six, +/_Sub.Mg. is manifested by noun classes one, three, or four.

The obligatory tagmeme, verb phrase seven head (+Vx7H) occurs in second position, and is manifested by the conditional declarative verb class (V7).

All other tagmemes are identical with their counterparts in Vx1, except that the subject margin is obligatory.

Examples of Vx7 are:	sa ne	"it is present"
	fǃakadwa hle	"there are no snakes now"

2.1.8 The equative declarative verb phrase (Vx8) manifests the tagmeme +Eq.Dec.Pr. in the equative declarative sentence. The internal structure of Vx8 is shown in the following formula:

+Eq.Sub.Mg. ±VxMg.2 +Vx8H

The obligatory tagmeme, equative subject margin (+Eq.Sub.Mg.) occurs in phrase initial with the meaning of the subject. It is manifested by Nx1.

The obligatory tagmeme, verb phrase eight head (+Vx8H) occurs in phrase final with the meaning of the equative predicate. It is manifested by the equative declarative verb class (V8).

The optional tagmeme ±VxMg.2, is identical with its counterpart in Vx1.

Examples of Vx8 are:	čáyi-na-he	"it is women only"
	élka-ae	"it is evil"
	owe-hae ɔǃka	"I am a man"
	ɔǃka-h-he	"he will be a man"
	"man-future-is"	
	člaeka-dódwa	"it is not a tree"
	"tree-is not"	
	owe-dódwa čáyi	"I am not a woman"
	"I-am not-woman"	

2.1.9 The intentional declarative verb phrase (Vx9) manifests the tagmemes +Intent.Pr. in the intentional declarative sentence, and +Tx3A in the time phrase three. The internal structure of Vx9 is shown in the following formula:

+Vx9H ±Tense Mg. ±Neg.Mg.

The obligatory verb phrase nine head tagmeme (+Vx9H), occurs in phrase initial with the meaning of the intention. It is manifested by the intentional declarative verb class (V9).

The optional tense margin tagmeme (\pm Tense Mg.) occurs in phrase medial with the meaning of tense inflection. It is manifested by temporal class 8a.

The optional negative margin tagmeme (\pm Neg.Mg.) occurs in phrase final with the meaning of negating the intention. It is manifested by the single intentional negative enclitic, *lwa* "but not".

An example of Vx9 is: H T N
 eyakhi-čase lwa "they were to be beaten, but..."
 "to be beaten-were-but"

2.1.10 The negative intransitive imperative verb phrase (Vx10) manifests the tagmeme +Intr.Imp.Pr. in the intransitive imperative sentence. The internal structure of Vx10 is shown in the following formula:

+Intr.Base +Imp.Neg.Mg.

The obligatory intransitive base tagmeme (+Intr.Base) occurs in phrase medial with the meaning of the intransitive action to be negated. It is manifested by verb class one.

The obligatory imperative negative margin tagmeme (+Imp.Neg.Mg.) occurs in phrase final with the meaning of negation of the action expressed in the base tagmeme. It is manifested by *čda-ši* "leave it".

An example of Vx10 is: *áwka-da-ši* "do not go!"
 "you go-leave-command"

2.1.11 The negative transitive imperative verb phrase (Vx11) manifests the tagmeme +Tr.Imp.Pr. in the transitive imperative sentence. The internal structure of Vx11 is shown in the following formula:

+Tr.Base +Imp.Neg.Mg.

The obligatory transitive base tagmeme (+Tr.Base) occurs in phrase initial with the meaning of the transitive action to be negated. It is manifested by verb class three.

The obligatory imperative negative margin tagmeme (+Imp.Neg.Mg.) occurs in phrase final and is identical with its counterpart in Vx10.

An example of Vx11 is: *féytónkya-da-što* "you (pl.) don't work!"
 "work-lim.-leave-command"

2.1.12 The stative verb phrase (Vx12) manifests the tagmeme +St.Pr. in the stative sentence. It is commonly used as a response, but is not limited to this use only. The internal structure of Vx12 is shown in the following formula:

\pm Obj.Mg. +Vx12H \pm VxMg.3 +St.Mg.

type three, +Nx1H, ±Nx1Mg.1, and Nx1Mg.3 in the noun phrase one, +Tx1A in the time phrase one, +Tx3A in the time phrase three, +Lx3A in the locational phrase three, +Lx5Mg. in the locational phrase five, +Px1A in the prepositional phrase one, +Px2A in the prepositional phrase two, ±Rx1Mg.1 in the reason phrase one, +Nx2H in the noun phrase two, +Lx1A in the locational phrase one, the subject tagmemes in verb phrases one and two, the object tagmemes in verb phrases three and four, the +Eq.Sub.Mg. tagmeme in verb phrase eight, and the +Qx2H tagmeme in the question phrase two.

Noun phrase two manifests all the subject one and object tagmemes on the sentence level. Noun phrase three manifests the free subject and free object tagmemes on the sentence level. Noun phrase four manifests the ±AxMg.2 tagmeme in the attributive phrase. Noun phrase five manifests all the direct address tagmemes on the sentence level. Noun phrases six and seven manifest all the subject one and object tagmemes on the sentence level, the +Nx1H and ±Nx1Mg.3 tagmemes in the noun phrase one.

2.2.1 The internal structure of noun phrase one (Nx1) is shown in the following formula:

$$\pm Nx1Mg.1 + Nx1H \pm Nx1Mg.2 \pm Nx1Mg.3 \pm Nx1Mg.4 \pm Nx1Mg.5 \pm Nx1Mg.6 \pm Nx1Mg.7$$

The optional tagmeme, noun phrase one margin one (±Nx1Mg.1) occurs in initial position with the meaning of specification. It is manifested by attributive classes 1, 2, 3b, and 3c, noun classes 1 and 2a, noun phrase one, attributive phrase one, locational phrase one, and the intransitive declarative limited action sentence.

The obligatory tagmeme, noun phrase one head (+Nx1H), occurs in second position and is manifested by noun classes 1, 2a, 2b, 3, 6, attributive class six, and noun phrase one.

The optional tagmeme, noun phrase one margin two (±Nx1Mg.2), occurs in third position with the meaning of temporal orientation. It is manifested by temporal class 8a.

The optional tagmeme, noun phrase one margin three (±Nx1Mg.3), occurs in fourth position with the meaning of stative modification of the +Nx1H. It is manifested by Nx1, or attributive classes 1 or 2a. As many as two of these tagmemes have been observed in sequence.

The optional tagmeme, noun phrase one margin four (±Nx1Mg.4), occurs in fifth position with the meaning of number. It is manifested by the attributive class 6.

The optional tagmeme, noun phrase one margin five (±Nx1Mg.5), occurs in sixth position with the meaning of temporary modification. It is manifested by attributive class eight, or prepositional phrase two.

The optional tagmeme, noun phrase one margin six (±Nx1Mg.6), occurs in seventh position with the meaning of emphasis. It is manifested by attributive class seven.

The optional tagmeme, noun phrase one margin seven (±Nx1Mg.7), occurs in final position with the meaning of limitation. It is manifested by attributive class four, or temporal class 3b.

Examples of Nx1 are:

H	3	4	
ethayo	tílš	fáthowa	"a pretty horse"
"horse-	pretty-	one"	
H	4	5	
púti	lišíno-	ǰwa	"three full pots"
"pot-	three-	full"	
1	H	3	7
owa	feya	lišíno-	hǰo
"this-month-	three-	end"	"end of this third month"
H	2		
éde-	he		"his fiancée"
"his-wife-	future"		

2.2.2 The internal structure of noun phrase two (Nx2) is shown in the following formula:

$+Nx2H \pm Nx2H +Nx2Mg.1 +Nx2H \pm Nx2Mg.2$

The obligatory tagmeme, noun phrase two head (+Nx2H), occurs both initially and in penultimate position, and is manifested by noun classes one through four, or noun phrases one through four.

The optional tagmeme, noun phrase two head ($\pm Nx2H$) occurs following the initial head tagmeme and is identical to the obligatory head tagmeme. Up to two optional head tagmemes have been observed, but apparently the number is not limited.

The obligatory tagmeme, noun phrase two margin one (+Nx2Mg.1), occurs immediately preceding the final +Nx2H with the function of joining the final head to the series. It is manifested by the conjunction phrase one.

The optional tagmeme, noun phrase two margin two ($\pm Nx2Mg.2$), occurs in final position with the function of modifying the head tagmemes. It is manifested by attributive class one.

Examples of Nx2 are:

H	1	H	
khóho	néyde	féhe	
"hand-	and-	foot"	
H	1	H	2
čha,	néma	čha	taške fowa sáto
"sky-and-sky-	beside-	stone-	plural"
			"sky, and beside the sky, two stones"

2.2.3 The internal structure of noun phrase three (Nx3) is shown in the following formula:

$\pm Nx3Mg.1 \pm Nx3Mg.2 \pm Nx3Mg.3 +Nx3H \pm Nx3Mg.4 \pm Nx3Mg.5 \pm Nx3Mg.6 \pm Nx3Mg.7$

The optional tagmeme, noun phrase three margin one ($\pm N_x3Mg.1$), occurs in initial position with the meaning of subjective modification. It is manifested by noun classes one or two (a).

The optional tagmeme, noun phrase three margin two ($\pm N_x3Mg.2$), occurs in second position with the meaning of temporal modification. It is manifested by time phrases three or four.

The optional tagmeme, noun phrase three margin three ($\pm N_x3Mg.3$), occurs in third position with the meaning of manner or locational modification. It is manifested by verb phrase one, prepositional phrase two, or locational phrase one.

The obligatory tagmeme, noun phrase three head ($+N_x3H$), occurs in fourth position with the meaning of the item. It is manifested by noun class three.

The optional tagmeme, noun phrase three margin four ($\pm N_x3Mg.4$), occurs in fifth position with the meaning of attributive modification. It is manifested by attributive class one.

The optional tagmeme, noun phrase three margin five ($\pm N_x3Mg.5$), occurs in sixth position with the meaning of emphasis. It is manifested by attributive class seven.

The optional tagmeme, noun phrase three margin six ($+N_x3Mg.6$), occurs in seventh position with the meaning of number. It is manifested by attributive class six.

The optional tagmeme, noun phrase three margin seven ($\pm N_x3Mg.7$), occurs in final position with the meaning of tense inflection. It is manifested by temporal class 8a.

Examples of N_x3 are:

H	_____	4	5	6			
	to-	donkya	yowa-	ne-	wa	sáto	"the well roasted ones"
	"roasted one-well-fem.-aug.-plural"						

2	3	H		
kyaesesde-	na	ohyake	ekw-dowa	"one who drinks water only after eating"
"eat-after-only-water-in-drink-one-who"				

2.2.4 The internal structure of noun phrase four (N_x4) is shown in the following formula:

$\pm N_x4Mg.1$ $\pm N_x4Mg.2$ $\pm N_x4Mg.3$ $\pm N_x4Mg.4$ $+N_x4H$ $\pm N_x4Mg.5$ $\pm N_x4Mg.6$ $\pm N_x4Mg.7$
 $\pm N_x4Mg.8$

The optional margin tagmemes one, two, and three, ($\pm N_x4Mg.1$), ($\pm N_x4Mg.2$), and ($\pm N_x4Mg.3$), are all identical with their counterparts in N_x3 .

The optional tagmeme, noun phrase four margin four ($\pm N_x4Mg.4$), occurs in fourth position with the meaning of objective modification. It is manifested by noun classes one or two.

The obligatory tagmeme, noun phrase four head ($+N_x4H$), occurs in fifth position with the meaning of the item. It is manifested by noun class four.

The optional tagmemes, noun phrase four margin five through eight occur in consecutive post-head positions and are identical with their counterparts (margins 4-7) in Nx3.

Examples of Nx4 are:

1	H	
	ísya éyni-dwase	"the one my mother bought"
	"my mother-it bought-one-was"	
	H	6
	éykhe-dwa-fthowa	"a tied one"
	"it-tied-one-one"	

2.2.5 The internal structure of noun phrase five (Nx5) is shown in the following formula:

+Nx5H ±Nx5Mg.

The obligatory tagmeme, noun phrase five head (+Nx5H), occurs in initial position with the meaning of the person addressed. It is manifested by noun class five.

The optional tagmeme, noun phrase five margin (±Nx5Mg.), occurs in final position with the meaning of attributive modification. It is manifested by attributive class one.

An example of Nx5 is:

H	1	
klai	lya	"white man, sir"

2.2.6 The internal structure of noun phrase six (Nx6) is shown in the following formula:

+Nx6H +Nx6Mg.

The obligatory tagmeme, noun phrase six head (+Nx6H), occurs in initial position with the meaning of the item. It is manifested by noun classes one or two.

The obligatory tagmeme, noun phrase six margin (+Nx6Mg.), occurs in final position with the meaning of comparative modification. It is manifested by attributive class five.

Examples of Nx6 are:

H	Mg.	H	Mg.
tafkéškya	thóčwa	ihfe-ča	"product of my country"
"cat-resembling"	"cat-like"	"my-country made of"	
H	Mg.		
ihfe-časa			"product of my country (feminine product)"
"my-country-made of-feminine"			

2.2.7 The internal structure of noun phrase seven (Nx7) is shown in the following formula:

+Nx7H +Nx7Mg.

The obligatory tagmeme, noun phrase seven head (+Nx7H), occurs in initial position with the basic meaning of the phrase. It has been found to be manifested by Lx1 and Px5. Apparently it could be manifested by any phrase that includes a subject.

The obligatory tagmeme, noun phrase seven margin (+Nx7Mg.), occurs in final position with the reflexive meaning of the subject. It is manifested by the single reflexive pronoun, sa "reflexive".

Examples of Nx7 are:

<p style="text-align: center;">H Mg.</p> <p>owe sa "I myself"</p> <p>"I-reflex."</p>	<p style="text-align: center;">H Mg.</p> <p>awe sa "you yourself"</p> <p>"you-reflex."</p>
<p style="text-align: center;"><u> H </u> Mg.</p> <p>ihso i eyfni-te sa</p> <p>"my-brother-I-to watch-reflex."</p>	<p>"I myself to watch my brother"</p>
<p style="text-align: center;"><u> H </u> Mg.</p> <p>ta khán-dow-de sa</p> <p>"he-put-that which-of-reflex."</p>	<p>"of those he himself put"</p>

2.3 Attributive Phrase

The attributive phrase manifests the ±Nx1Mg.1 tagmeme in Nx1. The internal structure of the attributive phrase is shown in the following formula:

+AxMg.1 ±AxMg.2 +AxH

The obligatory tagmeme, attributive phrase margin one (+AxMg.1), occurs in phrase initial with the meaning of possessional specification. It is manifested by noun class 2a.

The optional tagmeme, attributive phrase margin two (±AxMg.2), occurs in phrase medial with the meaning of classification. It is manifested by noun phrase four.

The obligatory tagmeme, attributive phrase head (+AxH), occurs in phrase final with the meaning of the basic modification of the phrase. It is manifested by verb phrase three, or noun class one.

Examples of Ax are:

<p style="text-align: center;">1 H</p> <p>tha žezuklíšto</p> <p>"their-Jesus Christ"</p>	<p>"their Jesus Christ....." (story)</p>
<p style="text-align: center;">1 2 H</p> <p>ya séǰo-ndowa číjo-fučkya</p> <p>"our-Indian group-fish-catch"</p>	<p>"our Indian fish catching" (method)</p>

2.4 Time Phrase

The time phrase hyperclass consists of four classes of time phrases. Each of these phrases manifests the time slot on the sentence level. In addition, Tx2 manifests the tagmemes +Tx2H in the time phrase two, +Tx2Mg. in the time phrase two, and +Tx3A in the time phrase three. Tx3 manifests the tagmemes ±Nx3Mg.2 in the noun phrase three, ±Nx4Mg.2 in the noun phrase four, +Tx2H in the time phrase two, and +Cx3Mg. in the conjunction phrase three. Tx4 manifests the tagmemes ±Nx3Mg.2 in the noun phrase three, ±Nx4Mg.2 in the noun phrase four, +Tx1A in the time phrase one, +Tx2H in the time phrase two, and +Tx3A in the time phrase three.

Time phrases two and four are group (1) phrase types, having obligatory nucleus tagmeme, time phrase head, and optional satellite tagmemes. Phrases one and three are group (2) phrase types, containing obligatory axis and relator slots. Each time phrase is now described.

2.4.1 The internal structure of time phrase one (Tx1) is shown in the following formula:

+Tx1A +Tx1R

The obligatory tagmeme, time phrase one axis (+Tx1A), occurs in phrase initial with the meaning of the time. It is manifested by temporal classes 1, 3, and 9, noun class 6, attributive class 2, Nx1, Tx2, Tx4, and Cx2.

The obligatory tagmeme, time phrase one relator (+Tx1R), occurs in phrase final with the meaning of temporal orientation. It is manifested by preposition classes one or eight.

Examples of Tx1 are:

A	R	A	R
owa-de	"then"	sóčake	"when it is late"
"this-of"		"late-in"	
A	R		
fthaeyke	"when it is night"		
"night-in"			

2.4.2 The internal structure of time phrase two is shown in the following formula:

+Tx2H +Tx2Mg.

The obligatory tagmeme, time phrase two head (+Tx2H), occurs in phrase initial with the meaning of the basic time. It is manifested by noun class one, temporal classes 1 and 2a, Tx2, Tx3, Tx4, Cx2, and the intransitive declarative limited action sentence.

The obligatory tagmeme, time phrase two margin (+Tx2Mg.), occurs in phrase final with the meaning of temporal orientation. It is manifested by attributive class four, temporal classes 2b, 5, and 6, and Tx2.

Examples of Tx2 are:

H	Mg.	
sóhma	sóndo-ma	"early tomorrow"
"tomorrow-early-when"		

H	Mg.	
untíma-fthaeya-sa		"last night"
"yesterday-night-at"		

H	Mg.	
fthaey-déyi		"every night"
"night-each"		

H	Mg.	
yahdédwa-kfafka	thúwi	"while the boy is sleeping"
"boy-sleep"	"while"	

2.4.3 The internal structure of time phrase three (Tx3) is shown in the following formula:

+Tx3A +Tx3R

The obligatory tagmeme, time phrase three axis (+Tx3A), occurs in phrase initial with the meaning of the event on which the timing is based. It is manifested by attributive class one, Vx2, Vx4, Vx9, Nx1, Tx2, Tx4, intransitive declarative unlimited action sentence, and transitive declarative unlimited action sentence. When the axis slot is manifested by a sentence type, one or more of the satellite tagmemes of this filler may occur following the relator slot, since the relator obligatorily follows the verb of the axis filler.

Example:

A	R	A (continued)
úči-klok-ma,	naçak-tóle	
"meat-cook-when-beans-with"		
"when meat is cooked with beans"		

The obligatory tagmeme, time phrase three relator (+Tx3R), occurs in phrase final with the meaning of temporal orientation. It is manifested by temporal class four.

Examples of Tx3 are:

A	R	
kyáeh-sesde		"after eating"
"eat-after"		
A	R	
owk eč-ma		"when he comes here"
"here-he come-when"		

2.4.4 The internal structure of time phrase four is shown in the following formula:

±Tx4Mg.1 +Tx4H ±Tx4Mg.2 ±Tx4Mg.3 ±Tx4Mg.4

The optional tagmeme, time phrase four margin one (±Tx4Mg.1), occurs in phrase initial with the meaning of specification. It is manifested by noun classes 1 and 2a, attributive class 2a, intransitive declarative limited action sentence, and transitive declarative limited action sentence.

The obligatory tagmeme, time phrase four head (+Tx4H), occurs in second position with the meaning of the basic time. It is manifested by temporal classes 1, 2a, and 3.

The optional tagmeme, time phrase four margin two (\pm Tx4Mg.2), occurs in third position with the meaning of inflectional modification. It is manifested by attributive classes 1, 4, and 6.

The optional time phrase four margin three tagmeme (\pm Tx4Mg.3) occurs in fourth position with the meaning of emphasis. It is manifested by A7.

The optional time phrase four margin four tagmeme (\pm Tx4Mg.4), occurs in fifth position with the meaning of specific time modification. It is manifested by temporal class 3.

Examples of Tx4 are:

H	4		
fthaeya-khaeta		"evening"	
"night-base"			
H	3		
ohníma-wa		"right now"	
"today-aug."			
1	H	2	4
owa feya lišíno-hjo			"end of this third month"
"this-month-three-end"			

2.5 Locational Phrase

The locational phrase hyperclass consists of six classes of locational phrases. Each of these manifests the location tagmeme on the sentence level. In addition, location phrase one (Lx1) manifests the tagmemes \pm Nx1Mg.1 in noun phrase one, \pm Nx3Mg.3 in noun phrase three, +Lx1R in the locational phrase one, +Lx3A in the locational phrase three, +Lx5H in the locational phrase five, +Adv.x2Mg. in the adverbial phrase two, +RxMg.2 in the reason phrase, and +Desc.Item in the non-predicate descriptive sentence. Also Lx4 manifests the object tagmeme in transitive declarative sentence types.

Lx5 and Lx6 are group (1) phrase types, having an obligatory nucleus tagmeme, locational phrase head, and margin tagmemes. All other locational phrases are group (2) types, containing obligatory axis and relator slots. The group two types contrast with one another in the fillers of the location relator tagmemes. Each locational phrase is now described.

2.5.1 The internal structure of locational phrase one (Lx1) is shown in the following formula:

+Lx1A +Lx1R

The obligatory tagmeme, locational phrase one axis (+Lx1A), occurs in phrase initial with the meaning of the basic location. It is manifested by attributive class 2a, or noun phrase one.

The obligatory tagmeme, locational phrase one relator (+Lx1R), occurs in phrase final with the meaning of direction. It is manifested by preposition classes 1, 7, or 8, locative class 5, or Lx1.

Examples of Lx1 are:

A	R	
khóçke		"in the door"
"door-in"		
A	R	
se-ti		"to the woods"
"woods-to"		
A	R	
dokéškya-tehke		"inside the dish"
"dish-inside"		

2.5.2 The internal structure of locational phrase two (Lx2) is shown in the following formula:

+Lx2A +Lx2R

The obligatory tagmeme, locational phrase two axis (+Lx2A), occurs in phrase initial with the meaning of basic location. It is manifested by locative class one.

The obligatory tagmeme, locational phrase two relator (+Lx2R), occurs in phrase final with the meaning of locational orientation. It is manifested by locative class 2.

An example of Lx2 is:

A	R	
úf-nána		"this way"
"here-toward"		

2.5.3 The internal structure of locational phrase three is shown in the following formula:

+Lx3A +Lx3R

The obligatory tagmeme, locational phrase three axis (+Lx3A), occurs in phrase initial with the meaning of basic location. It is manifested by Nx1 or Lx1.

The obligatory tagmeme, locational phrase three relator (+Lx3R), occurs in word final with the meaning of locational orientation. It is manifested by locative class 6.

An example of Lx3 is:

A	R	
séçnéh-de	čhānu-khdi	"beyond the city"
"city-of-yonder-direction"		

2.5.4 The internal structure of locational phrase four is shown in the following formula:

+Lx4A +Lx4R

The obligatory tagmeme, locational phrase four axis (+Lx4A), occurs in phrase initial with the meaning of basic location. It is manifested by verb class 2, or noun class 3.1.

The obligatory tagmeme, locational phrase four relator (+Lx4R), occurs in phrase final with the meaning of locational orientation. It is manifested by locative class 4.

Examples of Lx4 are:	A	R	
	no-se		"where it goes"
	"go-where"		
	A	R	
	ekwsesne-se		"thing where one drinks"
	"drink-thing-where"		or "jug"

2.5.5 The internal structure of locational phrase five is shown in the following formula:

+Lx5H +Lx5Mg.

The obligatory tagmeme, locational phrase five head (+Lx5H), occurs in phrase initial with the meaning of location. It is manifested by Lx1.

The obligatory tagmeme, locational phrase five margin (+Lx5Mg.), occurs in phrase final with the meaning of afterthought modification. It is manifested by Nx1.

An example of Lx5 is:	H	Mg.	
	sétisoke,	séti háesa	"in another house, a big house"
	"house-other-in-house-big"		

2.5.6 The internal structure of locational phrase six (Lx6) is shown in the following formula:

±Lx6Mg.1 +Lx6H ±Lx6Mg.2

The optional tagmeme, locational phrase six margin one (±Lx6Mg.1), occurs in phrase initial with the meaning of the goal or object of the locational orientation. It is manifested by noun class one.

The obligatory tagmeme, locational phrase six head (+Lx6H), occurs in phrase medial with the meaning of locational orientation. It is manifested by locative class 8.

The optional tagmeme, locational phrase six margin two (±Lx6Mg.2), occurs in phrase final with the meaning of object number. It is manifested by attributive class 6.

Examples of Lx6 are:	1	H	
	ɔçkaçke		"after the man"
	"man-after"		

H	2	
eϕke	sáto	"after them"
"it-after-plural"		

2.6 Prepositional Phrase

The prepositional phrase hyperclass consists of eight classes of prepositional phrases. The first six classes parallel the first six classes of prepositions respectively; thus the Px1R tagmeme is manifested by preposition class one.

The first seven classes are group (2) phrase types, having obligatory axis and relator slots. Class eight is a group (1) phrase type, having obligatory nucleus tagmeme, prepositional phrase head, and an obligatory satellite tagmeme.

All prepositional phrase classes contrast in the fillers of their slots and in external distribution. Each time phrase is now described.

2.6.1 Prepositional phrase one manifests the indirect object tagmeme on the sentence level. The internal structure is shown in the following formula:

+Px1A +Px1R

The obligatory tagmeme, prepositional phrase one axis (+Px1A), occurs in phrase initial. It is manifested by Nx1.

The obligatory tagmeme, prepositional phrase one relator (+Px1R), occurs in phrase final. It is manifested by preposition class one.

Examples of Px1 are:

A	R	
khékso-fthowke		"to a white man "
"white man-one-to"		
A R		
ike		"to me"
"me-to"		

2.6.2 Prepositional phrase two manifests the manner tagmeme on the sentence level, and the tagmemes ±Nx1Mg.5 in the noun phrase one, ±Nx3Mg.3 in the noun phrase three, ±Nx4Mg.3 in the noun phrase four, +Px7H1 in the prepositional phrase seven, +Adv.x2H in the adverbial phrase two, and ±F.Obj. in transitive declarative sentences. The internal structure is shown in the following formula:

+Px2A +Px2R

The obligatory tagmeme, prepositional phrase two axis (+Px2A), occurs in phrase initial. It is manifested by Nx1.

The obligatory tagmeme, prepositional phrase two relator (+Px2R), occurs in phrase final. It is manifested by preposition class two.

Examples of Px2 are:

$\frac{\text{A}}{\text{yak dakka \acute{e}kasa t\acute{o}le}}$	R	
"our-chief-his-daughter-with"		"with our chief's daughter"
A	R	
oĉhawe-se lyáyi		"with a gun"
"gun-with"		
$\frac{\text{A}}{\text{yahdédwa thóĉwa lišino-te}}$	R	
"boy-resembling-three-with"		"with three boy-like things" (puppets)

2.6.3 Prepositional phrase three manifests the reason tagmeme on the sentence level, and the tagmeme +RxH in the reason phrase. The internal structure is shown in the following formula:

+Px3A +Px3R

The obligatory tagmeme, prepositional phrase three axis, (+Px3A), occurs in phrase initial. It is manifested by verb classes 1, 3, or 5, or by verb phrases 1, 3, or 5.

The obligatory tagmeme, prepositional phrase three relator (+Px3R), occurs in phrase final. It is manifested by preposition class three.

Examples of Px3 are:

$\frac{\text{A}}{\text{i khde-dekke}}$	R	
"I-know-not-lim.-because"		"because I don't know"
$\frac{\text{A}}{\text{yaánkya ehkya-yókaske}}$	R	
"thing-it-run-lim.-well-lim.-because"		"because everything went well"
A	R	
i jakas káenkya		"because I erred"
"I-err-past-because"		

2.6.4 Prepositional phrase four manifests the circumstantial tagmeme on the sentence level. The internal structure is shown in the following formula:

+Px4A +Px4R

The obligatory tagmeme, prepositional phrase four axis (+Px4A), occurs in phrase initial. It is manifested by verb classes 2, 4, or 6, or by verb phrases 2, 4, or 6.

The obligatory tagmeme, prepositional phrase four relator (+Px4R), occurs in phrase final. It is manifested by preposition class four.

An example of Px4 is: $\frac{\text{A}}{\text{i náhseke}} \text{ R}$
 "if I see"
 "I-see-if"

2.6.5 Prepositional phrase five manifests the purpose tagmeme on the sentence level, the tagmeme +Pur.xH in the purpose phrase, and the tagmeme +Qx1H in the question phrase one. The internal structure is shown in the following formula:

+Px5A +Px5R

The obligatory tagmeme, prepositional phrase five axis (+Px5A), occurs in phrase initial. It is manifested by verb classes 2, 4, or 6, or by verb phrases 2, 4, or 6.

The obligatory tagmeme, prepositional phrase five relator (+Px5R), occurs in phrase final. It is manifested by preposition class five.

Examples of Px5 are:

A	R	
akéyni-te		"to teach you"
	"you-teach-to"	
A	R	
tačhán-te		"to gather firewood"
	"firewood-gather-to"	
A	R	
sa-kha-te		"to lie down"
	"reflex.-lie down-to"	

In the case of plural items in the axis tagmeme, or uncertainty concerning the identity of the item, additional items may occur following the relator.

Examples:

$\frac{\text{A}}{\text{nésesde éska-khán-te}}$	R	A (continued)
	ow úči khiwa	
		"afterward-egg-put-to-or-meat-perhaps"
		"afterward to include eggs, or perhaps meat"
$\frac{\text{A}}{\text{morségo sáto ta e-we-te, ínkyá sáto, ktowa-wa}}$	R	A (continued)
		"bat-plural-he-it-kill-to,-rat-plural-all-aug"
		"he was going to kill bats, rats, and everything"

2.6.6 Prepositional phrase six manifests the opinion tagmeme on the sentence level. The internal structure is shown in the following formula:

+Px6A +Px6R

The obligatory tagmeme, prepositional phrase six axis (+Px6A), occurs in initial position. It is manifested by noun classes one or two (a).

The obligatory tagmeme, prepositional phrase six relator (+Px6R), occurs in final position. It is manifested by preposition class six.

Examples of Px6 are:

A	R	
ifma		"in my opinion"
"me-for"		
A	R	
očkafma		"in the man's opinion"
"man-for"		

2.6.7 Prepositional phrase seven has been found to manifest the manner slot on the sentence level. Presumably it could manifest any tagmeme manifested by a prepositional phrase, since its function is to provide a means of expressing a prepositional phrase with a series of axis fillers. There are three obligatory tagmemes and one or more optional tagmemes, since the series is unlimited. The internal structure is shown in the following formula:

+Px7H1 +Px7Mg. +Px7H2 ±Px7H2

The obligatory tagmeme, prepositional phrase seven head one (+Px7H1), occurs in phrase initial with the basic meaning of the prepositional phrase. It has been found to be manifested by Fx2, and presumably could be manifested by any prepositional phrase.

The obligatory tagmeme, prepositional phrase seven margin (+Px7Mg.), occurs in second position with the meaning of series conjunction. It is manifested by conjunction phrase one.

The obligatory tagmeme, prepositional phrase seven head two (+Px7H2), occurs in third position with the meaning of an additional axis for the filler of +Px7H1. It is manifested by noun class one.

The optional tagmeme, prepositional phrase seven head two (±Px7H2), occurs in phrase final, and is identical with +Px7H2.

An example of Px7 is:

H1	Mg.	H2	H2
ithfe-tóle,	ného thake	ísa,	ihšičwa
"my-father-with-this-plus-my-mother-my-brothers"			
"with my father, mother, and brothers"			

2.7 Conjunction Phrase

The conjunction phrase hyperclass contains three classes of conjunction phrases. The first functions as series conjunction and manifests the tagmemes +Nx2Mg.1 in noun phrase two, and +Px7Mg. in prepositional phrase seven. Classes 2 and 3 function as thought continuation conjunction, and manifest the introductory tagmeme on the sentence level. Also Cx2 manifests the tagmemes +Tx1A in the time phrase one, and +Tx2H in the time phrase two. The internal structure of each phrase is now described.

Mg. B
i efni-ma-no "so when I see it"
"I-it-see-when-so"

2.8 Adverbial Phrase

The adverbial phrase hyperclass consists of two phrases which are grouped together because they both manifest the manner tagmeme on the sentence level. They contrast in internal structure.

2.8.1 Adverbial phrase one has one obligatory and one optional tagmeme. Internal structure is shown in the formula below:

+Adv.x1H ±Adv.x1Mg.1

The obligatory tagmeme, adverbial phrase one head (+Adv.x1H), occurs in phrase initial with the meaning of adverbial modification. It is manifested by the adverb word class.

The optional tagmeme, adverbial phrase one margin (±Adv.x1Mg.), occurs in phrase final with the meaning of emphasis. It is manifested by attributive class seven.

Examples of Adv.x1 are:

H Mg.	
ktiya-wa	"with great difficulty"
"with difficulty-aug."	

H Mg.	
sáena-wa	"the very same way"
"same way-aug."	

2.8.2 Adverbial phrase two contains two obligatory tagmemes. Internal structure is shown in the formula below:

+Adv.x2Mg. +Adv.x2H

The order of the tagmemes is unimportant, as the positions may be reversed.

The obligatory tagmeme, adverbial phrase two margin (+Adv.2xMg.), has the meaning of locational modification. It is manifested by Lx1.

The obligatory tagmeme, adverbial phrase two head (+Adv.x2H), has the meaning of adverbial modification. It is manifested by Px2.

An example of Adv.x2 is:

Mg.	_____	H
	satkhake látra háesa-ne-ǰwa lyáyi	
	"her-head-on-can-big-fem.-full-with"	
	"with a large full can on her head"	

2.9 Purpose Phrase

The purpose phrase manifests the purpose tagmeme on the sentence level, and the +Desc.Mg. tagmeme in the non-predicate descriptive sentence. There is one nuclear tagmeme,

the obligatory head, and an undetermined number of optional satellite tagmemes. The internal structure is shown in the following formula:

$\pm\text{Pur.xMg.1} \ +\text{Pur.xH} \ \pm\text{Pur.xMg.2}$

The obligatory tagmeme, purpose phrase head (+Pur.xH), occurs in phrase medial with the meaning of purpose. It is manifested by Px5.

The optional margin tagmemes occur in phrase initial and final positions with the meaning of inflectional modification. They are manifested by one or more of any of the sentence level satellite tagmemes.

Examples of the purpose phrase are:

1	H	
towe-tehke	khán-te	"to put in the fire"
"fire-into-put-to"		
1	H	2
ike	ko-te	kaske
"me-to-give-to-again"		"again to give to me"
Mg.	Mg.	H
néma	nésesde	ya ného sáto tós-te
"and-later-we-this-plural-burn-to"		"and later we will burn these"

2.10 Reason Phrase

The reason phrase manifests the reason tagmeme on the sentence level. There are two obligatory and one optional tagmeme. Internal structure is shown in the tagmemic formula below:

$+\text{RxMg.1} \ +\text{RxH} \ +\text{RxMg.2}$

The optional reason phrase margin one tagmeme ($\pm\text{RxMg.1}$), occurs in phrase initial with the meaning of subjective modification. It is manifested by noun phrase one.

The obligatory tagmeme, reason phrase head (+RxH), occurs in phrase medial with the meaning of the reason. It is manifested by Px3.

The obligatory tagmeme, reason phrase margin two (+RxMg.2), occurs in phrase final (most frequently, although it may occur preceding +RxH) with the meaning of temporal, locative, or purpose modification. It is manifested by temporal class 5, locational phrase one, or by one or more of the sentence level satellite tagmemes. Margin two may be duplicated to provide a series of differing modifications.

Examples of the reason phrase are:

1	H	2	
ta	čínkya-nokke	hle	"because it is getting dark already"
"it-dark-go-lim.-because-already"			

1	H	2	
	séço	nokaske	se-ti
			"because the Indian went to the woods"
			"Indian-go-lim.-past-because-woods-to"

2.11 Question Phrase

The question phrase hyperclass consists of two classes of question phrases. They are both type one phrases, having obligatory nucleus tagmeme, question phrase head, and margin tagmemes. They contrast in the fillers of the head tagmemes and in external distribution. They are now described.

2.11.1 The question phrase one (Qx1) manifests the +Pur.Interr. tagmeme in the intransitive interrogative sentence type four, and the transitive interrogative sentence type four. The internal structure is shown in the following formula:

+Qx1H ±QxRef.Mg. +QxInterr.Mg.

The obligatory tagmeme, question phrase one head (+Qx1H), occurs in phrase initial with the meaning of proposed action. It is manifested by Px5.

The optional question phrase reflexive margin (±QxRef.Mg.) tagmeme occurs in phrase medial with the meaning of subjective reflection. It is manifested by the reflexive personal pronoun, *sa* "itself".

The obligatory tagmeme, question phrase interrogation margin (+QxInterr.Mg.), occurs in phrase final with the meaning of interrogation. It is manifested by question word class one.

Examples of Qx1 are:

H	Int.		
ya	kfafa-te-ma	"we to sleep?"	
		"we-sleep-to-question"	
H	Int.		
a	kéyni-te-ma	"to teach you?"	
		"you-teach-to-question"	
H	R	Int.	
i	eyfni-te	sa-ma	"I, myself, to watch?"
			"I-watch-to-myself-question"

2.11.2 Question phrase two (Qx2) manifests the +Desc.Interr. tagmeme in the descriptive interrogative sentence type four. The internal structure is shown in the following formula:

+Qx2H +QxInterr.Mg.

The obligatory tagmeme, question phrase two head (+Qx2H), occurs in phrase initial with the meaning of description. It is manifested by Nx1.

The obligatory tagmeme, question phrase interrogation margin (+QxInterr.Mg.), occurs in phrase final and is identical with its counterpart in Qx1.

Examples of Qx2:

H	Int.	
ɔçkakkə-ma		"small man?"
		"man-small-question"
H	Int.	
čáyi-na-ma		"women only?"
		"woman-only-question"

3. SENTENCE

The sentence is defined as a syntactic unit which potentially occurs alone as a complete utterance. It may consist of a single word or phrase (as in the minimum form of most sentence types), a sequence of phrases (as in the expanded forms of most sentence types), or a complex form of sentence within sentence (as in the quotative sentence type). Sentence types, with tagmemic formulas for their nuclei, are listed below. There are two main classes: the first nineteen types are predicate type sentences; the remaining five types are non-predicate types.

The formulas below show only the nuclear tagmemes; these provide the diagnostic criteria for distinguishing sentence types (since structural levels higher than the sentence have been ignored in this paper, the criteria of external distribution features have not been used in identifying sentence types, except in the case of interrogative and response types).

There are also ten satellite tagmemes which occur in predicate type sentences (except 3.15) and which constitute an expansion of the basic nucleus in those sentences. The satellite tagmemes, in their most frequent order of occurrence are: Introductory (I), Direct Address (DA), Time (T), Location (L), Manner (M), Reason (R), Circumstantial (C), Purpose (Pur.), Opinion (Op.), and Uncertainty (U).

In relation to the nucleus, the first three usually occur first in the sentence, and the others occur following the nucleus, but there is considerable variation in the order of occurrence, and at times the satellites occur within the nucleus itself. Up to three satellites of the same kind have been observed in the same sentence, and it is common to observe many kinds of satellites within a sentence. All types may occur within the same sentence. The satellites are now briefly described:

The Introductory tagmeme has the function of joining the sentence to previous comment. It is manifested by the conjunction phrases two or three.

The direct address tagmeme is manifested by Nx5.

The time tagmeme is manifested by the temporal hyperclass, or any time phrase.

The location tagmeme is manifested by the locative classes 1, 5, 6, and 7, or any locational phrase.

The manner tagmeme is manifested by the adverb class, adverbial phrases one or two, Px2, or Px7.

The reason tagmeme is manifested by the reason phrase, or Px3.

The circumstantial tagmeme is manifested by Px4.

The purpose tagmeme is manifested by the purpose phrase, or Px5.

The opinion tagmeme is manifested by Px6.

The uncertainty tagmeme is manifested by particle class four.

The internal structure of each sentence type will now be described and illustrated with examples, where these are available, showing: (1) the minimum form of the nucleus, (2) expansion of the nucleus, and (3) further expansions by means of the satellite and special tagmemes. In some cases the minimum form or the expanded nucleus are the only forms which have been found to occur.

Sentence types and tagmeme formulas for nuclei:

Predicate type sentences:

1. Intransitive declarative limited action:
±FSub.1 +Intr.Dec.L.A.Pr. ±FSub.2
2. Intransitive declarative unlimited action:
±FSub.1 +Intr.Dec.U.A.Pr. ±FSub.2
3. Transitive declarative limited action:
±FSub.1 ±FObj. ±Tr.FSub.2 ±IO +Tr.Dec.U.A.Pr.
4. Transitive declarative unlimited action:
±FSub.1 ±FObj. ±Tr.FSub.2 ±IO +Tr.Dec.U.A.Pr.
5. Descriptive declarative limited action:
+/_Desc.Sub. +Desc.Dec.L.A.Pr.
6. Descriptive declarative unlimited action:
+/_Desc.Sub. +Desc.Dec.U.A.Pr.
7. Conditional Declarative:
+Cond.Dec.Pr.
8. Equative Declarative:
+Eq.Dec.Pr.
9. Intentional Declarative:
±Intent.Sub. +Intent.Pr.

10. Intransitive Imperative:
+Imp.Sub. +Intr.Imp.Pr. ±Loc.Mg.
11. Transitive Imperative:
±Obj.Mg. +Tr.Imp.Pr.
12. Stative:
±St.Sub. +St.Pr.
13. Intransitive Interrogative:
Type one: ±Interr.Sub. +Int.Interr.Pr. +Interr.Base One
Type two: +Interr.Base Two ±Interr.Sub. +Int.Interr.Pr.
Type three: +Intr.Dec.L.A.Pr. +Interr.Base Three
Type four: +Intr.Pur.Interr. +Aff.Eq.
14. Transitive Interrogative:
Type one: ±Interr.Obj. +Interr.Base One ±Interr.Sub. +Tr.Interr.Pr.
Type two: +Interr.Base Two ±Interr.Obj. ±Interr.Sub. +Tr.Interr.Pr.
Type three: +Tr.Dec.Pr. +Interr.Base Three
Type four: ±F.Obj. ±Interr.Sub. +Tr.Pur.Interr. +Aff.Eq.
15. Descriptive Interrogative:
Type one: ±Opin. ±Interr.Sub. +Interr.Base One +Desc.Pr.
Type two: +Interr.Base Two ±Opin. +Desc.Pr. ±Interr.Sub.
Type three: ±Opin. ±Interr.Sub. +Desc.Pr. ±Interr.Base Three
Type four: +Desc.Interr. +Aff.Eq.
16. Intransitive Response: +Intr.Resp.Pr.
17. Transitive Response: +Resp.Sub. +Tr.Resp.Pr.
18. Descriptive Response: ±Resp.Sub. +Desc.Resp.Pr. ±Neg.Mg.
19. Quotative: +Intr.Dec.L.A.Pr. +Quot.

Non-predicate type sentences:

20. Interrogative: Type one: +Interr.Base 2 ±DA
Type two: +Interr.Base 3 ±DA
Type three: +Interr.Item +Interr.Base 3
21. Descriptive: +Desc.Item +Desc.Mg.
22. Vocative: +Salut. ±DA

23. Exclamation: +Exc.
 24. Response: +Response

Sentence types at times manifest tagmemes at lower levels. Hence the intransitive declarative limited action sentence manifests the tagmemes $\pm N_x1Mg.1$ in noun phrase one, $+Tx2H$ in time phrase two, and $\pm Tx4Mg.1$ in time phrase four; the transitive declarative limited action sentence manifests the tagmeme $\pm Tx4Mg.1$ in time phrase four; and the intransitive declarative unlimited action and transitive declarative unlimited action sentences manifest the tagmeme $+Tx3A$ in time phrase three.

3.1 Intransitive Declarative Limited Action

The intransitive declarative limited action sentence has the meaning of a declaration of action limited in time or space affecting the subject and which is not directed toward a goal. The obligatory tagmeme, intransitive declarative limited action predicate ($+Intr.Dec.L.A.Pr.$) is manifested by the intransitive declarative limited action verb phrase ($Vx1$).

The optional tagmeme, free subject one ($\pm F.Sub.1$), normally only occurs on the sentence level when separated from the predicate by a satellite tagmeme, however, it may occur adjacent to the predicate if added emphasis is desired. It is manifested by $Nx1$, $Nx2$, $Nx3$, or $Nx6$.

The optional tagmeme, free subject two ($\pm F.Sub.2$) occurs following the predicate in order to give a more detailed description of the subject, or to add to it, as in a series. It is manifested by the same fillers as is $\pm F.Sub.1$.

Examples are:

Pr.	
thúthiyaka	"It hurts."
"hurt-lim."	

néma owa stólasne-te ĵaktayi, klaíkasa takka hle-de-he, yafni-te
 "and-this-story-tell-to-I-am-while,-white man's-daughter-is-now-then-that-us-see-to"

púti láyi sakhóhke
 "pot-with-her-hand-in"

"And while I am telling this story, the white man's daughter is standing then watching us, with a pot in her hand."

ehši-ne ftha-ne-w-na tak áwke nów thak ésa
 "his-sister-one-small-only-is-here-this-plus-his-mother"
 "Only his one small sister and his mother are here."

When the \pm F.Obj. occurs with certain verbs (nétkaka "want"; waeneka "open"; khetkya "find"; éysnika "pull") the filler must be Px2 using the preposition, $\acute{t}e$.

Example: ohya-te i nétkaka "I want water."
"water-with-I-want-lim."

The optional tagmeme, transitive free subject two (\pm Tr.F.Sub.2), is manifested by N2. The object tagmeme is obligatory to the occurrence of +Tr.F.Sub.2. It occurs only preceding the indirect object or predicate.

The optional tagmeme, indirect object (\pm I.O.), has the meaning of the goal toward which the action is directed. It is manifested by the prepositional phrase one.

Examples are:

ta ečhónkya "He is bringing it."
"he-it-bring-lim."

néma ta ik koka hle-de "And then he gave it to me."
"and-he-me-to-give-lim.-now-then"

ného tótkwa-no-ma yasa ethake ohya-čhatkya noka hle-de tóthohti-de-te
"this-dry-lim.-go-when-people-it's-top-on-water-pour-lim.-go-lim.-now-then-dry-aug.-neg.-to"
"While this is drying, I keep pouring water on top of it so it won't become too dry."

3.4 Transitive Declarative Unlimited Action

The transitive declarative unlimited action sentence has the meaning of a declaration of unlimited action, or action dependent on previously stated limits, directed toward a goal.

The obligatory tagmeme, transitive declarative unlimited action predicate (+Tr.Dec.U.A.Pr.), is manifested by the transitive declarative unlimited action verb phrase (Vx4).

All optional tagmemes are identical with their counterparts in the transitive declarative limited action sentence (3.3).

Examples are: i nétka "I want."
"I-want"

ta takha sáčakke "She carries on her side."
"she-carries-her-side-on"

i yasa kýchth-sesde saena-wa tha ikényi khla-he-de
"I-people-teach-after-same way-aug.-they-me-teach-much-also-then"
"After I teach people, they also teach me much in return."

3.5 Descriptive Declarative Limited Action

The descriptive declarative limited action sentence has the meaning of a declaration of limited description rather than action.

The descriptive subject tagmeme (+/_Desc.Sub.), occurs in nucleus initial position with the meaning of the subject of the description. It obligatorily occurs when the +Desc.Mg. of the +Desc.Dec.Pr. is manifested by Attributive class Ia, but it obligatorily does not occur when the same tagmeme is manifested by attributive class Ib. +/_Desc.Sub. is manifested by Nx1.

The obligatory tagmeme, descriptive declarative limited action predicate (+Desc.Dec.L.A.Pr.) occurs in nucleus final position and is manifested by the descriptive declarative verb phrase (Vx5).

Examples are:

ta tílšínkya	"She is pretty (at this time)."
"she-pretty-lim."	
eháesaka	"It is big (at this time)."
"it-big-lim."	

3.6 Descriptive Declarative Unlimited Action

The descriptive declarative unlimited action sentence has the meaning of a declaration of unlimited description rather than action.

The descriptive subject tagmeme (+/_Desc.Sub.), occurs in nucleus initial position, and is identical with its counterpart in the descriptive declarative limited action sentence.

The obligatory tagmeme, descriptive declarative unlimited action predicate (+Desc.Dec.U.A.Pr.), occurs in nucleus final position, and is manifested by the descriptive declarative unlimited action verb phrase (Vx6).

Examples are:

ekaka	"It is good."
"it-good"	
néma i háesaknokke hle, ikfakhejokka hle ifma	
"and-I-big-lim.-go-lim.-because-now,-my-earring-small-now-me-for"	
"And because I am getting big now, my earring is too small for me."	

3.7 Conditional Declarative

The conditional declarative sentence has the meaning of a declaration of a condition of passive presence or absence, or of temporary equation.

There is only one tagmeme, the obligatory conditional declarative predicate (+Cond.Dec.Pr.), which is manifested by Vx7. See 2.1.7 for examples.

3.8 Equative Declarative

The equative declarative sentence has the meaning of a declaration of a permanent equation of the subject to another noun or attributive. There is only one tagmeme, the obligatory equative declarative predicate (+Eq.Dec.Pr.), which is manifested by Vx8. See 2.1.8 for examples.

3.9 Intentional Declarative

The intentional declarative sentence has the meaning of a declaration of an intended action as opposed to realization of the action.

The obligatory tagmeme, intentional predicate (+Intent.Pr.), is manifested by the intentional declarative verb phrase (Vx9) and the hypothetical verb phrase (Vx13).

The optional tagmeme, intentional subject (\pm Intent.Sub.), occurs preceding the predicate. It is manifested by Nx1.

Examples are:

máyi i čdiya-ϕa

"but-I-brief-to be"

"But I will be brief."

oϕka nokaskeya

"man-go-lim.-past-hyp."

"The man would have gone."

tōth-dowa-de-he, eyakhi-ϕa

"dry-ones-then-that,-beaten-to be"

"Then the dry ones are to be beaten."

čhánϕa feyaso-seke jo-ϕase lwa palnóka-ti ithfe-tóle

"yonder-month-other-fem.-in-I-go-to be-past-but not-Recife-to-my-father-with"

"During that other month, I was to have gone to Recife with my father, but didn't."

3.10 Intransitive Imperative

The intransitive imperative sentence has the meaning of command affecting the recipient of the command. It contains two obligatory and one optional tagmeme.

The obligatory imperative subject tagmeme (+Imp.Sub.) occurs in sentence initial with the meaning of the subject affected by the command. It is manifested by the second person personal pronouns, a "second person singular" or wa "second person plural". This tagmeme replaces the +Intr.Sub. tagmeme of bound verb stems. It carries an intrinsic high tone.

The obligatory intransitive imperative predicate tagmeme (+Intr.Imp.Pr.) occurs in nucleus medial with the meaning of the command. It is manifested by the intransitive imperative verb class (V10) or by Vx10.

The optional location margin tagmeme (\pm Loc.Mg.) occurs in nucleus final with the meaning of location involved in the command. It is manifested by locative class three.

Examples are:

yo-što	"Let's go!"
"we go-command"	
áw-ši-na	"You come here!"
"you go-command-here"	
a-kfafka-da-ši owa séti ke	"Don't sleep in this house!"
"you-sleep-lim.-leave-command-this-house-in"	

3.11 Transitive Imperative

The transitive imperative sentence has the meaning of command with implied effect on some object as well as on the recipient of the command. It contains one obligatory and one optional tagmeme.

The optional object margin tagmeme (\pm Obj.Mg.) occurs in nucleus initial with the meaning of the object affected by the action of the command. It is manifested by noun class one.

The obligatory transitive imperative predicate tagmeme (+Tr.Imp.Pr.) occurs in nucleus final with the meaning of the command. It is manifested by the transitive imperative verb class (V11) or by Vx11.

Examples are:

eháčw-ne-ši	"Doctor it!"
"it-treat-verbalizer-command"	
kha-te da-ši	"Leave it lay!"
"lie-to-leave-command"	
kasa, táthne-ši	"Daughter, speak up!"
"daughter,-speak-command"	
ithlo kofleka-da-ši	"Don't feed the dog!"
"dog-feed-lim.-leave-command"	

3.12 Stative

The stative sentence has the meaning of an expression of a state of being affecting the subject of the sentence. It is commonly used as a response, but is not limited to this use only. There is one obligatory and one optional tagmeme.

The obligatory tagmeme, stative predicate (+St.Pr.) occurs in sentence final. It is manifested by the stative verb phrase (Vx12).

The optional tagmeme, stative subject (\pm St.Sub.), occurs in sentence initial and is manifested by noun class two.

An example is:

ta tílšín-do
"it-pretty-state"

"It is a pretty one."

3.13 Intransitive Interrogative

The intransitive interrogative sentence has the meaning of interrogation concerning action affecting the subject of the sentence. There are four sub-types because of contrast in internal construction.

Sub-type one contains two obligatory and one optional tagmeme.

The optional interrogative subject tagmeme (\pm Interr.Sub.), occurs in initial position with the meaning of the recipient of the interrogation. It is manifested by noun classes 1 or 2.

The obligatory intransitive interrogative predicate tagmeme (+Intr.Interr.Pr.), occurs in sentence medial with the meaning of the intransitive action in question. It is manifested by Vx2.

The obligatory tagmeme, interrogative base one (+Interr.Base 1), occurs in final position with the meaning of interrogation. It is manifested by question word class one.

Sub-type two contains the obligatory tagmeme, intransitive interrogative base two (+Intr.Interr.Base 2), in sentence initial with the meaning of interrogation. It is manifested by the double function interrogative attributive class nine.

The other two tagmemes are identical with their counterparts in sub-class one.

Sub-type three contains two obligatory tagmemes. The obligatory intransitive declarative limited action predicate tagmeme (+Intr.Dec.L.A.Pr.), occurs in sentence initial with the meaning of the limited intransitive action in question. It is manifested by Vx1.

The obligatory interrogative base three tagmeme (+Interr.Base 3) occurs in sentence final with the meaning of interrogation. It is manifested by question word class two.

Sub-type four contains two obligatory tagmemes.

The obligatory intransitive purpose interrogative tagmeme (+Intr.Pur.Interr.) occurs in sentence initial with the meaning of interrogation concerning the proposed intransitive action. It is manifested by the question phrase one containing an intransitive verb.

The obligatory affirmative equative tagmeme (+Aff.Eq.) occurs in sentence final with the meaning of affirmation of the interrogation. It is manifested by verb stem class eight.

Examples are:

Type one: eč-ma "Has he come?"
"he-come-question"

ohníma klai nos-ma, watke hetláto ki-te
 "today-white man-went-question-your-house-to-picture-take-to"
 "Did the white man go to your house today to take a picture?"

Type two: tóke tól eči? "Who did he come with?"
 "who-with-he-come"

una-ti a ów-ne, mazoni, ow-d atkač-ma
 "where-to-you-go-fut.-Mazoni-here-of-you-leave-when"
 "Where will you go, Mazoni, when you leave here?"

Type three: ačkya klehkese áko "You came first, isn't that right?"
 "you-come-first-past-question"

Type four: ya sáhtati-te-ma-he "Are we to converse?"
 "we-converse-to-question-aff."

ya kfafa-te-ma-he "Are we to sleep?"
 "we-sleep-to-question-aff."

3.14 Transitive Interrogative

The transitive interrogative sentence has the meaning of interrogation concerning action initiated by the subject and potentially affecting an object. There are four sub-types based on contrast in internal construction.

Sub-type one contains two obligatory and two optional tagmemes.

The obligatory tagmeme, interrogative base one (+Interr.Base 1), and the optional tagmeme, interrogative subject (±Interr.Sub.), are both identical with their counterparts in the intransitive interrogative sentence type one (3.13). Since +Interr.Base 1 is manifested by the enclitic, Q1, the occurrence of another tagmeme in sentence initial is obligatory to its occurrence preceding the subject. When no such tagmeme is present, +Interr.Base 1 shifts to the position following the next occurring tagmeme.

The obligatory tagmeme, transitive interrogative predicate (+Tr.Interr.Pr.), occurs in nucleus final with the meaning of the transitive action in question. It is manifested by Vx4.

The optional tagmeme, interrogative object (+Interr.Obj.), occurs in nucleus initial position with the meaning of the object of the action in question. It is manifested by noun classes 1 or 2.

Sub-type two contains two obligatory and two optional tagmemes.

The obligatory tagmeme, interrogative base two (+Interr.Base 2), occurs in nucleus initial position. It is identical with its counterpart in the intransitive interrogative sentence sub-type two (3.13).

The other tagmemes are identical with their counterparts in the transitive interrogative sentence sub-type one (3.14).

Sub-type three contains two obligatory tagmemes.

The obligatory transitive declarative predicate (+Tr.Dec.Pr.), occurs in nucleus initial with the meaning of the transitive action in question. It is manifested by Vx3 or Vx4.

The obligatory interrogative base three tagmeme (+Interr.Base 3), occurs in nucleus final position with the meaning of interrogation. It is manifested by question word class two.

Sub-type four contains two obligatory and one optional tagmeme.

The optional free object tagmeme (\pm F.Obj.), occurs in sentence initial with the meaning of the object of the interrogation. It is manifested by Nx1.

The optional interrogative subject tagmeme (\pm Interr.Sub.) occurs in second position and is identical with its counterpart in 3.13 type 1.

The obligatory transitive purpose interrogative tagmeme (+Tr.Pur.Interr.) occurs in third position with the meaning of interrogation concerning the proposed transitive action. It is manifested by the question phrase one containing a transitive verb.

The obligatory affirmative equative tagmeme (+Aff.Eq.) occurs in sentence final and is identical to its counterpart in 3.13, type 4.

Examples are:

Type one: ahšičwa-m a túthni "Do you love your brothers?"
 "your-brothers-question-you-love"

 úntmá číčiči-ne sató anáh-dónkya-ma a étwase
 "yesterday-book-plural-that you looked at-question-you-it-like-past"
 "Did you like the books that you looked at yesterday?"

Type two: tokéke a éynise "Why did you buy it?"
 "why-you-it-buy-past"

 klai lya, néma unayike áwtosa sétke-ne tílšiči-ne a éynise
 "white man-sir-and-where-that-cloth-fem.-pretty-fem.-you-it-buy-past"
 "White man, sir, where did you buy that pretty cloth?"

Type three: ta ném yahdédónkya takh lahe, áko
 "it-and-girl-takes-also-question"
 "And so the girl takes it also, isn't that right?"

ákh ke a khánkya-he, áko
 "your-neck-on-you-put-fut.-question"
 "You will put it on your neck, isn't that right?"

Type four: i akéyni-te-ma-he "Am I to teach you?"
 "I-you-teach-to-question-aff."

oŕka fowa-kháne-te-ma-he "Is the man to place the stone?"
 "man-stone-put-to-question-aff."

ihso i eyfni-te sa-ma-he
 "my-brother-I-watch-to-myself-question-aff."
 "Am I myself to watch my brother?"

3.15 Descriptive Interrogative

The descriptive interrogative sentence has the meaning of interrogation concerning description rather than action. There are four sub-types based on contrast in internal construction.

Sub-type one contains two obligatory and two optional tagmemes.

The optional interrogative subject tagmeme (\pm Interr.Sub.), occurs in initial position. It is identical with its counterpart in the intransitive interrogative sentence type two (3.13).

The obligatory descriptive predicate tagmeme (+Desc.Pr.), occurs following the subject. It is manifested by Vx5 or Vx6.

The obligatory interrogative base one tagmeme (+Interr.Base 1) is identical with its counterpart in 3.13 type 1. It occurs either following the subject or predicate tagmeme.

The optional opinion tagmeme (\pm Opin.) has the meaning of personal opinion concerning the predicate. It is manifested by Px6, and occurs either in sentence initial (most common) or following the interrogative base.

Sub-type two contains two obligatory and two optional tagmemes.

The obligatory interrogative base two tagmeme (+Interr.Base 2), occurs in initial position with the meaning of interrogation. It is manifested by the double function interrogative attributive class nine.

The other tagmemes are all identical with their counterparts in sub-type 1.

Sub-type three contains one obligatory and three optional tagmemes.

The optional tagmeme, interrogative base three (\pm Interr.Base 3), occurs in final position with the meaning of interrogation. It is manifested by question word class two.

The other tagmemes are identical with their counterparts in sub-type 1.

Sub-type four contains two obligatory tagmemes.

The obligatory descriptive interrogative tagmeme (+Desc.Interr.) occurs in sentence initial with the meaning of interrogation concerning description. It is manifested by Qx2, Nx1, or A9.

The obligatory affirmative equative tagmeme (+Aff.Eq.) occurs in sentence final and is identical with its counterpart in 3.13 type four.

Examples are:

Type one:	éyi khla-ma "price-much-question"	"Is the price high?"
	wafma ta tílš-i-ma "you(pl.)-for-it-pretty-question"	"In your opinion, is it pretty?"
Type two:	unáke wake éfetiya, asa nénke yahdédwa "which-you-of-oldest-you-or-boy" "Which of you is the older, you or the boy?"	
Type three:	afma tha kaka "you-for-they-good"	"In your opinion, are they good?"
	néw-na kakka, ádae "this-only-good-lim.-question"	"Only this one is good, isn't that right?"
Type four:	toke-hae "what-is"	"What is it?"
	ɔ́kaka-ma-he "man-small-question-aff."	"Is the man small?"
	čáyi-na-ma-he "woman-only-question-aff."	"Are they women only?"
	ɔ́ka-dódwa-ma-he "man-is not-question-aff."	"It is not a man, is it?"

3.16 Intransitive Response

The intransitive response sentence has the meaning of a response concerning action affecting the subject and not directed toward a goal. It contains only one tagmeme, the obligatory intransitive response predicate (+Resp.Pr.). It is manifested by Vx2. No satellite tagmemes have been observed in this sentence type.

Examples are:

eči "he-come"	"He comes."
------------------	-------------

i-čhón-dóde
"I-ill-not"

"I am not ill."

i kéftaka siya hle
"I-hear-want-immediately-now"

"I want to hear right now."

3.17 Transitive Response

The transitive response sentence has the meaning of a response concerning action directed toward a goal. It contains the obligatory response subject tagmeme (+Resp.Sub.) in initial position. It is manifested by noun class two.

The obligatory transitive response predicate (+Tr.Resp.Pr.) occurs in second position. It is manifested by Vx4.

Satellite tagmemes may optionally occur following the nucleus.

Examples are:

i ne	"I do."	i ne-de	"I do not."
i ekhde "I-it-know"	"I know."	i náhase hle "I-see-past-already"	"I saw already."
máyi i eyínese ta tílšínkyaske "but-I-it-buy-past-it-pretty-past-because"			"But I bought it because it was pretty."

3.18 Descriptive Response

The descriptive response sentence has the meaning of a response concerning description rather than action. It contains one obligatory and two optional tagmemes.

The optional response subject tagmeme (\pm Resp.Sub.), occurs in initial position. It is manifested by noun classes one or two.

The obligatory descriptive response predicate tagmeme (+Desc.Resp.Pr.), occurs in medial position. It is manifested by Vx6.

The optional negative margin tagmeme (\pm Neg.Mg.), occurs in final position with the meaning of negation explanation. It is manifested by the single negative enclitic, lwa (some speakers say la) "but not".

Examples are:

tha kaka "they-good"	"They are good."		
i kak-dóde "I-good-neg."	"I am not good."	élka-de "it-bad-neg."	"It is not bad."
éyi khla se lwa "price-much-past-neg."			"But did not because the price was high."

3.19 Quotative

The quotative sentence has the meaning of reporting a quotation. It contains two obligatory tagmemes.

The obligatory intransitive declarative limited action predicate tagmeme (+Intr.Dec.L.A.Pr.) normally occurs in initial position with the meaning of introducing the quotation. If the quotation is very brief, the order of the tagmemes may be reversed. It is identical with its counterpart in 3.1.

The obligatory quotation tagmeme (+Quot.) occurs in final position with the meaning of the quotation. It is manifested by any sentence type.

It is noted that there is no difference in structure between direct and indirect quotation. Only the context will indicate whether the subject referent in both tagmemes is the same or different.

Examples are:

íyo, i nese "I said, 'No'.
"no-I-say-past'

i neka, atake-ne éyi khla-ma "I say, 'Did your dress cost much?'"
"I- say-your-dress-price-much-question"

yakédakka nekase úntíma, noka-he sóhma, palnóka-ti
"our-chief-say-lim.-past-yesterday-he-go-lim.-fut.-tomorrow-Recife-to"
"Our chief said yesterday that he will go tomorrow to Recife."

3.20 Non-Predicate Interrogative

The non-predicate interrogative sentence has the meaning of a simple non-predicated question. There are three sub-types based on contrast in internal construction.

Sub-type one contains one obligatory and one optional tagmeme.

The obligatory interrogative base two tagmeme (+Interr.Base 2), occurs in initial position with the meaning of interrogation. It is manifested by the double function interrogative attributive class nine.

The optional direct address tagmeme (\pm DA) occurs in final position with the meaning of direct address. It is manifested by Nx5.

Sub-type two contains one obligatory and one optional tagmeme.

The obligatory interrogative base three tagmeme (+Interr.Base 3) occurs in initial position with the meaning of interrogation. It is manifested by question word class two.

The optional direct address tagmeme (\pm DA), occurs in final position, and is identical with its counterpart in sub-type one.

Sub-type three contains two obligatory tagmemes.

The obligatory interrogative item tagmeme (+Interr.Item), occurs in initial position with the meaning of the item in question. It is manifested by Nx1 in the data studied, and presumably could be manifested by any word or phrase.

The obligatory interrogative base three (+Interr.Base 3) tagmeme occurs in final position, and is identical with its counterpart in sub-type two.

Examples are:

Type one:	tokéke, klai lya "why-white man-sir"	"Why, white man, sir?"
Type two:	ae klai lya "agreement-white man-sir"	"Isn't that right, white man, sir?"
Type three:	čáyi-na ádae "woman-only-question"	"Women only, isn't that right?"

3.21 Non-Predicate Descriptive

The non-predicate descriptive sentence has the meaning of description of items being displayed or explained. It contains two obligatory tagmemes.

The obligatory descriptive item tagmeme (+Desc.Item), occurs in initial position with the meaning of identification of the item. It is manifested by Lx1 or Nx1.

The obligatory descriptive margin tagmeme (+Desc.Mg.), occurs in final position with the meaning of the description. It is manifested by Nx1, or Pur.x1.

Examples are:

néma oça-de dokéškya øwsesnekka-ne-wa
"and-this (fem.)-of-dish-wash-thing-small-fem.-dim."
"And this--a very small dish pan."

néma oça-de dokéškya yas eço-te tehke
"and-this(fem.)-of-dish-people-wash-to-in"
"And this--a basin for people to wash things in."

3.22 Non-Predicate Vocative

The vocative sentence has the meaning of salutation. It contains one obligatory and one optional tagmeme.

The obligatory salutation tagmeme (+Salut.) occurs in initial position. It is manifested by particle class two.

The optional direct address tagmeme (\pm DA) occurs in final position. It is manifested by Nx5.

Example: aéyi klai lya "Hello there, white man, sir!"
 "greeting-white man-sir"

3.23 Non-Predicate Exclamation

The exclamation sentence has the meaning of exclamation of wonder or surprise. It is manifested by only one tagmeme, the obligatory exclamation (+Exc.). It is manifested by particle class three.

Example: yaánkya "exclamation (women only)"
 kúh "exclamation (men only)"

3.24 Non-Predicate Response

The non-predicate response sentence has the meaning of a simple response. It contains only one tagmeme, the obligatory response (+Resp.). Apparently it may be manifested by almost any word or phrase. Fillers actually observed in this slot are: Nx1, Nx2, Ax2, Lx1, Pur.x1, Tx3, particle class one, and any attributive.

Examples:

anhán	"Yes."	sáde	"True."	čáyi	"Woman."
ečlaea-ne ftha-ne-ma	"For 100 cruzeiros."	oso	"Me (fem.)."		
"it-red-fem.-one-fem.-for"					
éde, néyde yahdédwa	"His wife and boy."				
"his-wife-and-boy"					

FOOTNOTES

1. Yahthe is spoken by the Fulniô Indians who live on and near the Pôsto Indígena Dantas Barreto of the Serviço de Proteção aos Índios at Águas Belas, Pernambuco, Brazil. The name given the language by its speakers is "Yahthe", which actually means "our mouth". The language has not as yet been assigned to any known language family. All neighboring tribes have either become extinct or have lost their indigenous language except for a few isolated words.

The Fulniô Indians are in a state of rapid social change due primarily to their dependency upon modern society for food, clothing, medicine, etc. The language is becoming increasingly infiltrated with Portuguese loan words, stems, and phonemes. Of the 1,711 Fulniô Indians living today, approximately 10% no longer speak the language, and many others now speak only Portuguese in the home. On the other hand, about 95% of the tribe speaks fluent Portuguese.

The phonemics of Yahthe are: front vowels i, e, æ; mid vowel a, back vowels u, o, ɔ; consonants p, ph, d, t, th, ç, çh, k, kh, j, č, čh, f, z, s, š, h, m, n, l, w, and y. There are two phonemic tones, high and low. Stress is non-phonemic. Hyphen (-) is used to indicate tone perturbation of the preceding vowel to high tone. If no vowel precedes the hyphen, this indicates that a vowel has been dropped.

2. The field studies on which this paper is based were made during three visits to the tribal area: the first, December 1, 1960 - May 1, 1961; the second, June 1, 1961 - September 15, 1961; the final period of study, July 1, 1962 - September 8, 1962. Also tape-recorded texts were gathered during a brief visit in July, 1964. Total field time was about eleven months. During this time seven informants were employed. The bulk of the material was obtained from Manuel Francisco Ribeiro; male; age 46; fluent speaker of Portuguese, although Yahthe is his mother tongue. He reads and writes Portuguese well. Also Masoni; female; age 16; speaks very little Portuguese. Other informants used slightly were Fernando Luna Jaguari; male; age 55, Lorenço; male; age 50, Reinita; female; age 29, and Simplicio Alves dos Santos; male; age 85.

In addition to the above field studies, further checking was done in Recife in August and September, 1967, and May, 1968, with Milton Lúcio; male; age 29. Milton speaks some Portuguese when necessary, but uses Yahthe exclusively at home.

These studies were conducted in the field with full authorization of the Serviço de Proteção aos Índios and with the full co-operation of the local encarregado, Sr. Coriolano Mendonça. They were further made possible by the co-operative agreement between the Museu Nacional of Rio de Janeiro and the Summer Institute of Linguistics.

3. K.L. Pike. Language in relation to a unified theory of human behavior. Glendale, California, Part I 1954, Part II 1955, Part III 1960.

4. Velma Bernice Pickett. The Grammatical Hierarchy of Isthmus Zapotec. Language, Vol. 36, No. 1 (Part 2) Supplement (Language Dissertation No. 56). For other presentations of variants of this model see IJAL 23 (July, 1957).

5. Other formulaic representations in this paper are: 1. + indicates obligatory occurrence of the tagmeme following it; ± indicates optional occurrence of the tagmeme following it; +/_ indicates obligatory occurrence or obligatory non-occurrence of the tagmeme following it, depending on certain co-occurrence restrictions which are described in the text; - indicates tone perturbation of the preceding vowel to high tone. If no vowel precedes the hyphen, this indicates that a vowel has been dropped. ´ indicates high tone; 2. in illustrations, the English translation of each morpheme is separated by a hyphen.

6. A perturbing suffix affects the preceding vowel as follows:

- a) if that vowel is low tone, it is perturbed to high tone;
- b) if that vowel is high tone, it is dropped.

7. A brief statement of morphophonemics is given here:

1. Vowel loss: Final vowels of words are frequently dropped in rapid speech unless there is pause following a word; unstressed vowels in suffixes are normally dropped unless this would form a consonant cluster of more than two consonants (hence – ´dowa becomes ´dwa); i and o before k are not completely lost, but are reduced to semi-vowels and are repeated following the k, hence sáto plus ke becomes sátwkwe, and thuli plus ka becomes thulykya.

2. Vowel fusion: When a and e come together at morpheme boundaries, they fuse to æ.

3. Vowel and consonant fusion: When *i* and *d* are brought together at morpheme boundaries, they fuse to *ǰ*.
 4. Consonant fusion: When an aspirated stop is brought into cluster with another voiceless stop, the first stop loses its aspiration; voiced stops become voiceless when brought into cluster with a voiceless stop.
 5. Vowel harmony: In suffixes, *e* becomes *i* when the final stem vowel is *i* (even if the final stem vowel is lost through contraction).
8. The various verb classes in which the base limiter tagmeme is manifested could be analyzed as sub-types of the respective unlimited action verb classes. This would then require listing the base limiter tagmeme as *+/_ base limiter* (depending on distribution at a higher level). This usage would parallel the formulas for V5 and V6 where a similar situation exists when the descriptive margin is manifested by sub-classes of A1.

They are kept as separate classes here in order to simplify the description of distribution within phrases and sentence types.