

7F. Huautla de Jiménez Mazatec

EUNICE V. PIKE

- 0. Introduction
- 1. Phoneme
- 2. Syllable
- 3. Phonological word
- 4. Phonological phrase
- 5. Phonological sentence
- 6. Relationship between phonology and grammar
 - 6.1. Minimal pairs
 - 6.2. Phonological phrases which end in the middle of a grammatical phrase
- 7. Monologue
 - 7.1. Official speech
 - 7.2. Christian prayer
 - 7.3. Pagan prayer
 - 7.4. Narrative monologue
 - 7.5. Non-monologue speech
- 8. Grammatical sentence
 - 8.1. Declarative sentences
 - 8.2. Imperative sentences
 - 8.3. Equational sentences
 - 8.4. Demonstrative sentences
 - 8.5. Interrogative sentences
- 9. Clause
 - 9.1. Types of clause
 - 9.1.1. Declarative clauses
 - 9.1.1.1. Declarative transitive clauses
 - 9.1.1.2. Declarative intransitive clauses
 - 9.1.1.3. Declarative impersonal clauses
 - 9.1.2. Imperative clauses
 - 9.1.3. Equational clauses
 - 9.1.4. Demonstrative clauses
 - 9.1.5. Interrogative clauses
 - 9.2. Dependent clauses
 - 9.2.1. *nka*-clause
 - 9.2.2. Time clause
 - 9.2.3. Result clause
 - 9.2.4. *but*-clause
 - 9.2.5. Purpose clause
 - 9.2.6. Limiting clause
 - 9.2.7. Manner clause
 - 9.2.8. *if*-clause
 - 9.2.9. *although*-clause
 - 9.2.10. Secondly dependent clauses
- 10. Grammatical phrase
 - 10.1. Predicate phrase
 - 10.1.1. Transitive verb phrases
 - 10.1.2. Intransitive verb phrases
 - 10.1.3. Impersonal verb phrases
 - 10.1.4. Adjectival phrases
 - 10.1.5. Appearance verb phrases
 - 10.1.6. Numerative verb phrases
 - 10.1.7. Copulative verb phrases
 - 10.1.8. Demonstrative verb phrases
 - 10.2. Types of subject and/or object fillers
 - 10.2.1. Noun phrases
 - 10.2.2. Pronoun phrases
 - 10.2.3. Possessive pronoun phrases
 - 10.2.4. Demonstrative clauses
 - 10.2.5. Demonstrative noun phrases
 - 10.2.6. *š³* plus declarative phrase
 - 10.2.7. *š³* plus possessive pronoun or possessed noun
 - 10.2.8. Relative phrases
 - 10.3. Instrumental fillers
 - 10.4. Independent recipient fillers
 - 10.5. Specifier phrases
 - 10.6. Manner fillers
 - 10.7. Types of location slot fillers
 - 10.8. Interrogative slot fillers
 - 10.9. Time slot fillers
- 11. Grammatical word

- 11.1. Independent grammatical words
 - 11.1.1. Verbs
 - 11.1.2. Nouns
 - 11.1.3. Pronouns
 - 11.1.4. Possessive pronouns
 - 11.1.5. Adjectives
 - 11.1.6. Time words
 - 11.1.7. Manner words
 - 11.1.8. Specifier words
 - 11.1.9. Clause fillers for grammatical phrases
- 11.2. Dependent grammatical words
 - 11.2.1. Optional slot fillers
 - 11.2.2. Obligatory slot fillers

0. INTRODUCTION. This article is an attempt to describe some of the units of Mazatec¹ speech. Those included of the phonological hierarchy² are: (1) the vowel phoneme with its types, *i, e, o, a*, etc.; (2) the consonant phoneme with its types, *t, k, m*, etc.; (3) the syllable with its types contrasting by tone; (4) the phonological word with its types contrasting by the placement of an obligatory syllable; (5) the phonological phrase with its types contrasting by a combination of fade or lack of fade in intensity or pitch on a lengthened syllable; (6) the phonological sentence with its types contrasting by breathiness, or down-drift of pitch on a ballistic syllable, or by a ballistic syllable followed by length.

The units in the grammatical hierarchy³ described here are: (1) the grammatical sentence which occurs in the body of a monologue with its types contrasting by the kind and number of clauses of which it is composed; (2) the independent clause with its types contrasting by the kind of grammatical phrases of which it is composed and by the

¹ There are about 90,000 speakers of "Mazatec," most of them living in the northern part of the state of Oaxaca, Mexico. There are numerous dialects, differing from one another in varying degrees. This is a study of the Huautla de Jiménez dialect, which has an estimated 30,000 speakers. For information on other dialects, see Gudschinsky, 1955, 1958a, 1959c; E. V. Pike, 1954, 1956; Villa Rojas, 1955.

² This study is an outgrowth of the theory presented in K. L. Pike, 1954, 1955, and 1960.

³ Discussions with Velma Pickett about the grammatical hierarchy in relation to Mazatec grammar proved to be very helpful.

verb; (3) the dependent clause with its types contrasting by the introducer; (4) grammatical phrases contrasting (a) by their function in the clause, (b) by the words in the obligatory slot and (c) by the parts which modify those words; (5) words separated into various parts of speech according to their distribution in the various phrases.

1. PHONEME. The vowel phonemes are *i, ī, e, ē, a, ā, o, ō*. Following a sequence of consonant plus glottal stop, a vowel is laryngealized. Allophones of *o* and *ō* vary from high back rounded to low rounded. The length of the individual vowel varies in accordance with its place in the syllable, word, or phrase.

The consonant phonemes are: stops *p, t, k* (voiced after *m* or *n* unless followed by *h*); affricates *c, č, č̣* (retroflexed *č*); glottal stop *ʔ*; sibilants *s* and *š* (retroflexed especially before vowels); the phoneme *h* (voiceless nasal before nasals, a light fricative—bilabial after *v*, alveopalatal before *y*, and velar elsewhere); voiced nasals *m, n* (velar before *k*), *ñ*; voiced fricative *v* (voiceless before *h*); the glide *y*; the lateral *l*; the flap *r* (rare); and occasionally from Spanish loan words, *b, d, g, rr*.

2. SYLLABLE. The nucleus of the syllable always follows the margin. It may contain one, two, or three vowels. The clusters are composed either of all oral vowels, or of all nasal vowels. The clusters of two are: *ao, ai, ia, io, ie* (rare), *oi, oe, oa*. The clusters of three are: *iai, iao, oia, oai, oao, ioa*, and *ioi*. Nasalized vowels cluster in the same way.

The length of a syllable with one vowel is approximately the same as a syllable with three vowels. The vowels in a syllable with three are extremely short. For conditions under which the length of the syllable varies, see §3.

The margin of the syllable may contain one, two or three consonants. Except for *st, sk, št*, and *šk*, all clusters must contain *h, n*, or *ʔ*. They are as follows: *ht, hk, hc, hč, hč̣, hm, hn, hñ, hv, hy; th, kh, ch, čh, čḥ; mh, nh, vh, sh, šh; tʔ, kʔ, cʔ, čʔ, č̣ʔ; mʔ, nʔ, ñʔ, yʔ, vʔ, lʔ, sʔ, šʔ; ʔm, ʔn, ʔñ, ʔv, ʔy; mp, nt, nk, nc, nč, nč̣*.

Clusters of three are as follows: *hnt*, *hnk*, *hnč*, *hnč*; *?nt*, *?nk*, *?nc*, *?nč*, *?nč*; *nt?*, *nk?*, *nc?*, *nč?*, *nč?*; *nth*, *nkh*, *nch*, *nčh*, *nčh*; *hc?*, *hč?*; *sk?*, *št?*, *šk?*.

The nucleus of the syllable may contain a single tone, or a cluster of two or three tones. There are four contrasting heights, and these may combine into the following clusters. Considering tone ¹ to be high, and tone ⁴ to be low, they are: ¹³, ¹⁴, ²³, ²⁴, ³⁴, ⁴³, ⁴², ³², ²¹, ⁴²⁴, and ⁴²³.

There is no relationship between the number of tones and the number of vowels in a syllable. There may be a cluster of two tones on a syllable with one vowel (*tí⁴²* 'a jar'), or just one tone on a syllable with two or three vowels (*koai⁴* 'he will go').

For a more complete description of the phonemes, and for a discussion of the immediate constituents of a syllable, see Pike and Pike, 1947. The glide ²¹ was not listed in that article. Usually the phonetic pitch seems to be a level half way between tone ² and tone ¹, but it has been interpreted as a ²¹ cluster. Examples of it contrasting with tone ¹ and tone ² are: *sí¹če²¹* 'he steals', *sí¹te²* 'he spins', *sí¹he¹* 'he asks'. Morphemes with the cluster ²¹ have allomorphs with tone ¹ which occur when preceding tone ¹. In some other environments it varies to tone ².

3. PHONOLOGICAL WORD. Each phonological word has one and only one obligatory syllable. That syllable is the phonological word center, and the placement of it is contrastive. In §3-6 I have indicated that syllable by bold face. Examples: *ša⁴²nta⁴na⁴* 'mother hen', *ša⁴²nta⁴na⁴* 'my hen' *ya¹ši²le⁴* 'chair', *ya¹ši²le⁴* 'his dry stick'.

This obligatory syllable has a number of allots: (1) relatively loud; (2) relatively long; (3) combination of both; (4) loud fading quickly to soft sometimes even to voicelessness; (5) long and lenis; (6) long with down-drift of pitch. The choice of allo is dependent upon the place of the word within a phonological phrase or phonological sentence (see §4, 5).

Phonological words contain the obligatory

syllable, with or without other nonobligatory syllables. Examples: *ki³* 'he went', *ca³ka²te⁴hna³* 'I stayed', *čo⁴ta⁴mi²yo⁴le⁴* 'his friend.'

Within a stream of speech, change of speed (fast on words of many syllables, slow on words of one syllable) makes the length of time taken for the pronunciation of the various words more nearly the same. Thus when the words *ni³nta³* 'bone' and *khoa⁴vi³hna³č³* 'life' are in analogous places in the phonological sentence, the pronunciation of the word 'life' is speeded up to the extent that the obligatory syllable in the word for 'life' is definitely shorter than the nonobligatory syllable in the word 'bone'.

Syllables which precede the obligatory syllable are often faster and more fortis than syllables following the obligatory syllable. Therefore a border between words occurs at any such point of increasing speed and intensity. This has been indicated by word space. Example: *ma³čo⁴ya³na³hi⁴ nt²ai⁴vi⁴*. 'It is understood by us now'.

This observation was made from a tape on which a man with deliberate speech was talking. On a tape in which a fourteen-year-old girl was speaking rapidly, I could not identify such a point. In these instances the presence of two phonological words is made certain by the presence of two phonological word centers with an indeterminate border between them—just as a sequence of phonemes may be identified by their centers even though there are slurred indeterminate borders between. The optional audible border phenomenon is an optional contrastive feature of the larger phonological unit—the phonological word.

4. PHONOLOGICAL PHRASE. Each phonological phrase ends with a phonological word whose obligatory syllable is lengthened, unless it coincides with the ballistic syllable of the phonological sentence (see §5). Such a syllable is indicated, in section 4-6, by ° immediately preceding it.

A phonological phrase may contain one or more phonological words. It may optionally

be followed by the contrastive feature pause. Example: *vha³ai³ nti⁴ci⁴*, 'They arrive at the market'.

The lengthened syllable which is obligatory to the phonological phrase occurs near the end of it. Optionally there may also be an even longer and louder nonfading syllable near the beginning. It emphasizes the word in which it occurs. I have indicated such a syllable by an exclamation point immediately following it.

Within a phonological phrase, all syllables following the one with obligatory length are lenis. Therefore an increase in speed and intensity indicates a different phonological phrase.

Thus far I have noted four types of phonological phrases.

(1) In the nonfinal phonological phrase, the most common type, the lengthened syllable fades in intensity while staying more or less the same pitch. This type of phonological phrase has been indicated by a comma. Example: *nkhi¹! kha⁴si³ ki³s²ia³, koa²ce³*. 'There were many things that I did long ago'.

The nonfinal phonological phrase is often used in utterance-response situations. Example: *ho¹ thi¹ o²chi¹le⁴*, 'How much does it cost?'

(2) In the series phonological phrase, the lengthened syllables fades less in intensity, but glides down in pitch—unless the lengthened syllable already has tone ⁴. This series type of phonological phrase most frequently occurs when it is one of a sequence of coordinate grammatical units. It has been indicated by a hyphen preceding a comma.

Example: *k²oa⁴ti⁴ ki³kha³o²a³, ?a³ na⁴o⁴hme¹-, k²oa⁴ti⁴ ki³kha³o²a³, nta⁴hai³-, k²oa⁴ti⁴ ki³ka³te³ ka³o²vhe²-. 'Also, I went to get (hesitation) corn, also I went to get, sugar-cane, also I went to cut coffee'.*

(3) In the hesitation phonological phrase, the obligatory syllable is loud, very long, with sustained intensity. It has been indicated by colon. Example: *ka²vh²hto³ ?ya⁴ve⁴*. 'She went behind—over there'.

(4) In the deliberation phonological phrase, the obligatory syllable is soft, and medium length. Its most frequent occurrence is on introducers. In the text in which the mayor's speech was mimicked, 15 out of 20 subordinate clauses started with soft length on the introducer. It has been indicated by a raised dot after the vowel. Example: *he² n²eo² °khqa³na⁴, ši³k²oa⁴s²i² ki³o²ka⁴na³, nka³ he² ši³k²oa⁴ki³o²co²na³*, 'It was my aunt, who thus went with me, because (hesitation) she thus told me. . . .'

5. PHONOLOGICAL SENTENCE. Each phonological sentence must have a ballistic syllable. A ballistic syllable starts loud—but not as loud as a syllable signaling emphasis—and has a quick fade to soft, sometimes even to voicelessness. It fades so abruptly that in a two syllable word, the length of the ballistic obligatory syllable may be as short or shorter than the nonobligatory syllable of that word. If the ballistic syllable is not the last one in the phonological sentence, the fade on that syllable may be less, since it is continued over on to the following syllable.

I have noted four types of phonological sentences.

(1) The terminal phonological sentence has a ballistic syllable with the characteristics described above. It is the one used most frequently and signals finality. It is also used when trying to get someone's attention. It has been indicated by a period. Example: *ma³ria² n²ion¹! ma³o²che², nka³ ni²o²ša¹*. 'Mary, it is very needful that we work'.

(2) The series phonological sentence has a sharp downglide on the ballistic syllable. It differs from that of a series phonological phrase in that the downglide is faster. It has been indicated by a hyphen preceding a period.

(3) The breathy phonological sentence ends with a ballistic syllable but has breathiness added to the final vowel. It signals a request for immediate attention. This is frequently used when trying to get someone's attention without shouting. I have indicated

it with an *h* preceding period. Example: *ma³⁰riah²*. 'Mary!'

(4) The intensified phonological sentence ends with a ballistic syllable which fades, but then picks up intensity again. If the ballistic syllable of the intensified phonological sentence is other than last, the last syllable is long and intense. It signals irritation and has been indicated by a raised dot preceding a period. Example: *t²ai² nai¹³ nt²ai⁴*. 'Give it to me now!'

A short text follows in which the various phonological units have been indicated. *he³², n²iq¹! kq³ nkhi² no¹-, k²ia⁴ nka³ ya⁴ te⁴⁰hao⁴, ca³ka²te⁴⁰hna³. k²ia⁴nka³ to⁴ho³ te³ no¹ th¹na³. nka³nchai² ni⁴⁰ch¹, ki³. kha²⁰a³ ci³⁰ki¹. ya⁴ nki³cao³si³ th¹na³hi⁴*. 'Very many years ago, when (hesitation) there Huautla, I stayed. When only (hesitation) ten (hesitation) years were had by me. Every day, I went to get firewood. There in the ranch which was had by us'.

6. RELATIONSHIP BETWEEN PHONOLOGY AND GRAMMAR. A grammatical word and a phonological word usually but do not always coincide (see §10 and 11 for skewing).

A grammatical phrase may coincide with a grammatical word if the grammatical word is the complete filler of a slot in a grammatical clause. (For special definition of phrase, see §10.) The number of grammatical phrases included within one phonological phrase is variable. In slow precise speech, if the sentence has only independent grammatical words, there may be a one for one correspondence. Example: *k²ia⁴, vhi²⁰kao⁴, k²e³le⁴, n²oa¹*. 'Then they go with their dead to the cemetery.' If the same sentence is repeated at a faster speed, the phonological phrase becomes more inclusive, extending over several grammatical phrases. The reverse is not true. Even in slow speech, phonological phrases do not normally end in the middle of a grammatical phrase. (For discussion of when they do, see §6.2.)

An independent clause is a filler of the obligatory slot of a grammatical sentence. A dependent clause is a filler of one of the

optional slots of a grammatical sentence. There is nothing in the phonological hierarchy that corresponds with the grammatical clause. The grammatical clause may consist of one or of several phonological phrases.

A phonological sentence is a phrase or sequence of phrases, the last of which has a ballistic syllable. A grammatical sentence is a filler of a slot in a narrative monologue. In one ten-page sample of narrative text, the end of each grammatical sentence coincided with the end of a phonological sentence. However, the end of a phonological sentence did not always coincide with the end of a grammatical sentence. Many of the grammatical sentences were long, with several dependent clauses in each, and occasionally a phonological sentence ended between dependent clauses. Also, three times in that text the phonological sentence ended in the middle of a grammatical clause. Each of the three times, however it gave the impression that the part which followed the phonological sentence was added as an "afterthought." Example: *to⁴hnko³ tho², ha³⁰-ai³⁰kao⁴ni³. hnko³ na⁴⁰si¹*. 'They came with (it) quickly. A horse'.

6.1. MINIMAL PAIRS occur not only between words composed of different phonemes, but also between units on higher levels.

When a sequence of two phonological words is replaced by an otherwise homophonous sequence of three phonological words, the meaning of the total may be changed. A third phonological contour has been added to the linear phonemic sequence, forming a minimal pair on the higher level of the phonological hierarchy. (Grammatical changes accompany the phonological change but are not as such under attention here.) Examples: *ki³ski³⁰nta¹hao² sa⁴⁰nta⁴*. 'The rooster crowed the second time'. *ki³ski³⁰nta¹hao² sa⁴⁰nta⁴*. 'Two roosters crowed'. *ca³ka³ce³ yao³⁰nti¹*. 'He bought tenderloin'. *ca³ka³ce³ yao³ nti¹*. 'The baby bought meat'.

Similarly, when a phonological phrase is

replaced by an otherwise homophonous sequence of two phonological phrases, the added phonological high-level contour may (in conjunction with changes in grammatical structure) change the meaning of the whole. Examples: *vi³tho³he³ ni³yo³le⁴ o³ti³*. 'They came down from the boy's house'. *vi³tho³he³ ni³yo³le⁴, o³ti³*. 'The boy came down from somebody's house'. *vi²ko³le⁴ nka³c²i³ ma²yo⁴le⁴*. 'They went to see all their friends'. *vi²ko³le⁴ nka³c²i³, ma²yo⁴le⁴*. 'Their friends went to see them all'.

In fast speech each sentence might be composed of just one phonological phrase, in which case the pairs of utterances would be homophonous and ambiguous. Such variations within the phonological hierarchy emphasize the partial independence of the phonological hierarchy from the grammatical one.

When a phonological sentence is added to a phonological sentence, or to a sequence of sentences (even though the phonological phrases remain the same), the meaning of the total may be changed. Example: *khai¹nka³ o³si³na³, ko⁴so¹the⁴*. 'It's a nuisance to me to get up. (I don't like to get up.)' *khai¹nka³ o³si³na³ ko⁴so¹the⁴*. 'It's a nuisance to me. I'll get up.' (Meaning that he'd rather get up than endure.)

6.2. PHONOLOGICAL PHRASES WHICH END IN THE MIDDLE OF A GRAMMATICAL SENTENCE. In the introduction to §6 it was stated that even in slow speech, phonological phrases do not, in most instances, end in the middle of a grammatical phrase. There are two specific circumstances when they do.

When a sequence of co-ordinate words is the filler of one subject or object slot, it is, by definition, just one grammatical phrase. It is, however, a sequence of phonological phrases. Example: *ca³ki³o³ntai¹⁴hi³ bo¹⁰rro¹, na⁴o³si¹, o³ta²⁰ha³*. 'We bought donkeys, horses, mules'.

When the filler of a subject or of an object slot is composed of a noun with two co-ordinate modifying parts, the entire thing is, by

definition, one grammatical phrase. It is, however, two phonological phrases. Example: *he² ši³ki³choa³le⁴ na⁴ši¹, ši³s²a⁴ha³o²ai³, thi¹le⁴ o³ta²⁰*. 'He who gave him the horse, and who just came, has money'. In that example, the modifying parts were co-ordinate. If, however, the two modifying parts are included within one phonological phrase, then the second is subordinate to the first. The meaning would be, 'He who gave him the horse that just came, has money'.

The meaning would be the same if, instead of just one phonological phrase, the speaker had paused after the second connector *ši³*. To have done so would have broken up the modifying unit, but by pausing there he would have signaled that the expression was subordinate to the preceding predicate rather than co-ordinate with it. In such instances there is a skewing of the borders of the phonological and grammatical units.

There is a similar situation in relation to clauses. Each dependent clause has an introducer which distinguishes it from other dependent clauses and from an independent clause. A clause which is a modifying part within a phrase may have a similar introducer. If a sentence is to be unambiguous, if it is specific that the clause is subordinate to another clause and not co-ordinate with it, there must be no pause preceding the introducer; that is, the introducer must be included in the same phonological phrase as the clause to which it is subordinate. Example: (indep. clause) *k²oa⁴co² cho⁴ta⁴ša¹*, (nka-clause) *nka³k²oa⁴s²i² va³te¹šo³⁰ma³na³nka³*, (subordinate nka-clause) *si⁴tho³šo²nka³yi³he³ o³khoa⁴*. 'That's what the officials say, because they thus order us to obey all things'.

7. MONOLOGUE. There are several contrastive types of monologue in Mazatec speech. Among them are: official speech, Christian prayer, prayer to native deities, narrative.

7.1. OFFICIAL SPEECH is formal and has long complicated sentences. They may have

one independent clause and then many dependent clauses in sequence. Such sequences of dependent clauses are used when the occasion calls for elegance. Salesmen may use them.

Example:⁴ (indep.)⁵ *tʔeʔski⁴-nai¹³ taq⁴*. (indep.) *kʔoeʔnta³-le²³ šq⁴-le⁴*, (purpose) *hme¹-ni³ nka³ hčā⁴-si¹ni³* (*nka*-clause subordinate to purpose) *nka³ ña³ki³ cʔq⁴ bo¹rro¹-ve⁴*, (limiting subordinate to *nka*-clause) *sa³ʔnta³ a³li²koi³ koa³te³na¹³ ca³kai³-ni³*, (*nka*-clause subordinate to limiting) *to⁴nka³ taq⁴ kha¹nka³ nʔiʔ¹ ma³čhe¹-na³*, (result subordinate to limiting) *koi³² nka³ ti¹va³te¹na³-si¹nia³ bo¹rro¹-na⁴*. 'Count out the money for me. I'll make you a bill of sale, so that you can know that the donkey is really mine—so much so I wouldn't even be selling it, but I very much need money, that's why I'm selling my donkey'.

This type of monologue is especially noticeable when the mayor is giving the people the news, telling them about the work of the town.⁶ I recorded a text of someone mimicking the mayor. It consisted of a greeting: *ʔnta²⁴-no³ čho⁴ta⁴na⁴šiča³na³nta¹*. 'Hello to you citizens'. Then there was an independent clause followed by seven dependent clauses each subordinate to the preceding one; then another independent clause and fourteen more dependent clauses; then the closure, *nkhī² kʔa³ ni³na¹šiča³ka²tʔe²čhi¹⁴-no³*. 'Many times thank you'.

7.2. CHRISTIAN PRAYER is characterized by equational and imperative sentence types. A section of one prayer: *hi³ ni¹³ šiči³ ti³ni²thao²-ča²-nai¹hi⁴*. *hi³ ni¹³ šiči³ ti³vʔai²-nai¹hi⁴ šiči³ ʔyo³*, *šiči³ čiči³ne³*. *hi³ ni¹³ šiči³ khi³ma³ma⁴ča³-nai¹hi⁴*.

⁴ In the examples written in §7-11, the obligatory syllable of the phonological word is followed by a hyphen unless it is the last syllable in the word, in which case it is followed by space. Arbitrarily introducers have been followed by word space. Phonological phrase is indicated by comma, and a phonological sentence by period.

⁵ In the parentheses preceding each clause, its function has been indicated.

⁶ For a discussion of the content of such speeches, see F. H. Cowan, 1952.

'You are the one who loves us. You are the one who gives us what we drink, what we eat. You are the one who takes pity on us'.

7.3. PAGAN PRAYER. Some prayers to native deities are characterized by vocatives. Each hilltop has a god and he is called upon for help.

Example: *kʔoa⁴ hqʔ²³-vi⁴*, *čiči³kq³ to³ko²šo⁴*, *čiči³kq³ ni³nto³nto³va³*, *čiči³kq³ na⁴šiči³nka³nai²³*, *čiči³kq³ nta¹čo⁴*, *si⁴he¹⁴-no³ nka³ kʔoa⁴-sʔi² ti⁴se⁴-ka⁴-nao¹³*. 'And you plural there, Holy Tokoso, Holy Nintontova, Holy Nasinkanai, Holy Ntacho, I ask of you plural that you thus help me?' (I know of no way of translating the names of the various hilltops.)

7.4. NARRATIVE MONOLOGUE frequently begins with a topic sentence which is a dependent clause but which has the characteristics of a phonological sentence. Example: *kʔia⁴ nka³ mʔe³ hnko³ čho⁴ta⁴ ʔi⁴ na⁴šiči³na³nta¹-vi⁴*. 'When a person dies here in this city'. The monologue usually ends with a summary sentence that begins with *kʔoa⁴-sʔi²* 'thus'. The body of the narrative monologue is made up of a series of independent sentences.

7.5. NON-MONOLOGUE SPEECH, especially in question-response situations, has many sentence fragments which do not contain an independent clause. Such sentences are not treated in this paper. For the most part the grammatical constructions described here are restricted to those which appear in the body of a narrative monologue.

8. GRAMMATICAL SENTENCE. There are five different classes of sentence types which constitute the body of a narrative monologue. They are: declarative, imperative, equational, demonstrative, interrogative.

Any of the sentence types may begin with *kʔoa⁴* the co-ordinator. Example: *kʔia⁴ va¹ya³ ka²ša⁴*. *kʔoa⁴ kʔia⁴ si¹kʔe³ nkhī² ša⁴nta⁴*. 'Then they put (him) in a box. And then they kill many chickens'.

Each sentence has an obligatory part which is an independent clause. Optionally a sentence may contain two independent clauses. If both independent clauses are con-

tained within one phonological sentence, then they are one grammatical sentence. Example: *li²ko³ me³-na³, ?a³ coa³*. 'It is not wanted by me, I pick up'. ('I don't want to pick it up').

In addition to the obligatory part, there are optional parts—various dependent clauses. These dependent clauses are: time, if-clause, purpose, manner, result, limiting, but-clause, although-clause, and *nka*-clause.

8.1. DECLARATIVE SENTENCES may be considerably longer than other types, first because of more parts in their grammatical phrases, and second, because they have more dependent clauses.

When there are several clauses in a sentence, the most frequent order is: time, if-clause, independent clause, *nka*-clause. The sequence of the other clauses has not been determined. If the independent clause is negative, it may, but does not necessarily, precede the time or if-clause.

Example of a declarative sentence with an independent transitive clause: (time) *k²ia⁴ nka³ ci² ma³-le⁴ šq⁴*, (indep.) *to⁴ho³ kha⁴?ai¹ čho⁴ta⁴ vhi²k²?e¹ša¹-le⁴ š²i³ v²e¹nta³-le⁴ šq⁴ š²i³ si⁴ka³se¹-nka¹ni³le⁴ ?nti¹-le⁴*, (result) *ko³i² nka³ ma³čhe¹-si¹ni³ ni²?ai⁴-vi⁴* (*nka*-clause subordinate to result) *nka³ nka³c²?i³ šti³ kao⁴ čho⁴ta⁴-hč¹i¹nka³ ka²ta³ko³?a²ya³ šq⁴*, (purpose subordinate to *nka*-clause) *hme¹-ni³ nka³ koq³č²ya³-si¹ni³le⁴ nka³c²?i³ na⁴š²i³na³nta¹*. 'When paper is not known by him, he takes it to a different person who⁷ will make a paper that⁷ he will send to his son, that's why it is now necessary that all children and old people study paper, in order that all the towns can understand'.

(if-clause) *ca² ma³č²ya³-le⁴*, (indep.) *sko²la⁴ ska⁴ni² nka³c²?i³ šti³-le⁴*, (purpose) *hme¹-ni³ nka³ sko⁴-si¹ni³ ha⁴šti³-le⁴ hme³ kho⁴-ma³ š²i³ s²?i² k²ia⁴ nka³ koq⁴hč¹nka³*. 'If they understood, they would send all their children to school, in order that all their children

⁷ These have not been marked as sentence parts since they are part of the recipient phrase; the first is modifying "person" in that phrase and the second "paper."

might know what⁸ business they would do when⁸ they become old'.

Example of a declarative sentence with an independent impersonal clause: (if-clause) *ca² hnko³ čho⁴ta⁴ š²i³ č²?i³ ti¹m²e³-ni³*, (indep.) *ma³2(nka-clause) nka³ v²?ai²-le² ko³i²nta⁴ čho⁴-ta⁴ša¹*, (purpose) *hme¹-ni³ nka³ vhi²2kho³mi³the⁴-si¹ni³*. 'If a person who has sickness is dying, it is acceptable that we give the officials an account (tell them), in order that they go pick (him) up'.

Declarative sentences which have independent intransitive clauses in my data have only two types of dependent clause, namely the time and *nka*-clause. Example: (time) *k²ia⁴ nka³ he³koq³ ni²?ai⁴*, (indep.) *ki³ ?nta³ sia²*. 'When it was over, they went as far as the outskirts'.

(indep.) *k²ia⁴ he² čho⁴ta⁴-ve⁴ kha¹ nka³ si²khao³hi³*, (*nka*-clause) *nka³ ci² ca² ki³ sko²-la⁴*. 'Then this person grieves because he did not go to school'.

8.2. IMPERATIVE SENTENCES may have any of the various dependent clauses in addition to the independent clause; there is, however, seldom more than one in a sentence.

Examples: (if-clause) *ca² ma³sq²-ni³li² taq⁴*, (indep.) *č²?ai⁴-ni³*, (if-clause) *ca² ci² ma³sq²-ni³li² taq⁴*, (indep.) *ka²ta³v²e²*. 'If money is left over, buy; if money is not left over, let it go'.

(indep.) *nki²hnko³ šq⁴ ka²ta³si³ca³se¹-na³ te³re²sa⁴*, (if-clause) *ca² nka³ ma³čhe¹-le⁴ nka³ sko¹ya³-nai³*. 'Another letter let Teresa send me, if she needs to wait for me'.

8.3. EQUATIONAL SENTENCES which have dependent clauses are rare. There are, however, a few examples in my data.

Numerative equational sentence: (indep.) *to⁴hnko³ ma³-ni³* (*nka*-clause) *nka³ he³k²e³ š²i³ k²a³*. 'There is just one because the rest are dead'.

Adjectival equational sentence: (indep.) *kha¹ nka³ škq¹* (*nka*-clause) *nka³ s²e³nta³*. 'It

⁸ These have not been marked as sentence parts since together they make up a relative phrase (see §10.2.8) filling the object slot of the purpose clause.

is very dangerous to make'. (indep.) *ci*⁴² *khoa*⁴, (if-clause) *ca*² *ca*³ *hi*³ *li*². 'It's your affair (trouble), if you forget'.

In my data the appearance equational sentence and the copulative equational sentence consist of the independent clause only. The description of them will come in §9.1.3 and 10.1.5-7.

8.4. DEMONSTRATIVE SENTENCES may have a dependent clause. Example: (indep.) *he*² *ši*³ *kqa*³ *nka*³ *le*⁴, (*nka*³-clause) *nka*³ *koi*³² *vi*³ *nka*³ *nchai*²³. 'That's what he's accustomed to, because that's what he always drinks'.

8.5. INTERROGATIVE SENTENCES which have dependent clauses are rare. I have examples with a time clause, an if-clause, and an *nka*-clause. In all examples, the independent clause is initial.

Example: (indep.) *hme*¹ *ša*¹ *ši*³ *s*² *ia*³ (time) *k*² *ia*⁴ *nka*³ *ca*² *khoa*¹³. 'What work would I do, when-if I go?' (indep.) *a*³ *nta*³ *thi*¹⁴² *ni*³ (*nka*-clause) *nka*³ *k*² *e*³ *ki*³ *ni*² *k*² *ai*³. 'Is it good that you killed a dead one (murdered)?'

9. CLAUSE. All clauses which fill the obligatory slot of a sentence are independent. All which fill one of the optional slots of a sentence are dependent.

9.1. TYPES OF CLAUSE. There are six types of independent clauses, and the predicate is obligatory to all. Included within the predicate is a fused subject and sometimes a fused recipient. One clause type differs from another by the lists of verbs used in the predicate, and by the relationship of the predicate to the other grammatical phrases, which are optional, obligatorily absent, or also obligatory.

The grammatical phrases other than the predicate are: independent subject, object, instrumental, independent recipient, location, time, quantifier, manner, specifier, interrogative.

Although there are eleven of these which may be used in a clause, I have never found all of them in the same clause. One bit of narrative monologue contained 145 inde-

pendent clauses. Of those, 11 had the predicate phrase only, 75 had the predicate and one other phrase, 41 had the predicate and 2 other phrases, 17 had the predicate and 3 other phrases. Only one of the clauses had 5 phrases.

There is considerable flexibility in the order of the phrases. One of the predominant factors influencing this order is that the position for emphasis is clause initial. The sequence changes as the emphasized phrase is put first. Example:⁹ (pred.) *thi*¹ *le*⁴ (obj.) *č*² *i*³. 'Is had by him sickness'. (obj.) *č*² *i*³ *š*³ *k*² *e*¹ (pred.) *thi*¹ *le*⁴. 'Old age is had by him'.

Another factor which influences the order is *-šo*¹ 'it is indicated (by words or actions)'. Any part which contains this particle is put clause initial. Examples: (subj.) *co*² *ti*³ *šo*¹ (pred.) *ca*³ *ka*³ *ce*³ (obj.) *ni*⁴ *š*² *ti*² *la*⁴. 'The girl, they say, bought bread'. (obj.) *ni*⁴ *š*² *ti*² *la*⁴ *šo*¹ (pred.) *ca*³ *ka*³ *ce*³ (subj.) *co*² *ti*³. 'Bread, they say, the girl bought'. (pred.) *ca*³ *ka*³ *ce*³ *šo*¹ (obj.) *ni*⁴ *š*² *ti*² *la*⁴ (subj.) *co*² *ti*³. 'The girl bought, they say, bread'.

9.1.1. DECLARATIVE CLAUSES are the most common of the clause types. The types differ from one another by the verbs which are used and by the obligatory absence of an object in intransitive clauses, and the obligatory absence of a subject in impersonal clauses. The interrogative phrase is obligatorily absent from all three types.

9.1.1.1. DECLARATIVE TRANSITIVE CLAUSES must have a transitive verb. It may have any of the optional phrases but the interrogative one. Examples: (obj.) *na*³ *h*³ *ño*³ (pred.) *ti*² *va*³ *ne*³ *le*⁴ (recipient) *na*⁴ *na*⁴. 'I wash clothes for my mother'. (obj.) *hnko*³ *nka*⁴ *hao*⁴ (pred.) *ca*³ *nki*³ (subj.) *čho*⁴ *ta*⁴. 'The people dug a hole'. (pred.) *li*² *koi*³ *nta*³ *si*¹ *koi*² *nta*⁴. 'He doesn't take care of (it) well'.

9.1.1.2. DECLARATIVE INTRANSITIVE CLAUSES must have an intransitive verb. The object is obligatorily absent. Examples: (instr.) *nc*⁴ *ko*⁴ (pred.) *ka*² *vha*³² *ai*³ *ni*³ (loc.)

⁹ In the examples in this section, the function of each phrase has been indicated in parentheses.

te⁴hao⁴. 'On foot he arrived in Huautla'.
 (time) *k²ia⁴* (pred.) *ki³* (loc.) *nti⁴ci⁴* (subj.)
na⁴-le⁴. 'Then his mother went to market'.
 (pred.) *nčha¹ vhi²⁴-no³* (recipient) *h²* (subj.)
ntia⁴². 'The road goes hard for you'. ('Walk-
 ing is hard for you'.)

9.1.1.3 DECLARATIVE IMPERSONAL CLAUSES must have an impersonal verb. It differs from the transitive and intransitive clauses in that the subject is obligatorily absent. (These clauses are most easily translated into English as a passive verb with subject, but in Mazatec the noun phrase patterns as an object. For example, it may have a relative phrase as filler of the object slot, see §10.2.8.) Another difference is the frequency of the recipient phrase. An intransitive clause only occasionally has a recipient phrase, whereas it is one of the most frequent parts of an impersonal clause. Examples: (pred. with dep. rec.) *s²e³hi³-le⁴* (obj.) *nta¹na⁴²yo⁴* (recipient) *nka³c²i³*. 'Corn-drink is served to all'. (pred. with dep. rec.) *me²-na³* (obj.) *na³nta¹* (specifier) *ši³ i²a³c²e⁴ ti³-na⁴*. 'Water is wanted by me for my boy'. (pred. with dep. rec.) *li²koi³ šo¹-na³* (obj.) *ka³vhe²*. 'Coffee will not boil for me'.

9.1.2. IMPERATIVE CLAUSES differ from declarative clauses in the composition of the verb and in the low frequency of an independent subject. Imperative clause types differ from one another in the same way that declarative clause types differ.

Examples of imperative transitive clause: (pred.) *ti⁴ntai¹³* (time) *ni²ai⁴-vi⁴*. 'Buy now'. (pred. with dep. rec.) *ti⁴he¹-lai⁴* (obj.) *khoa⁴-nta³* (rec.) *ni³na¹*. 'Ask for grace from God'. (subj.) *a³li² hi³ hi²³* (pred.) *no²khoai⁴*. 'Don't you talk'. (pred. with dep. rec.) *i²e²ški⁴-nai¹³* (obj.) *ta²* (specifier) *ši³ i²a³c²e⁴ ?nti¹-na⁴*. 'Count out money for me for my son'.

Examples of imperative intransitive clause: (pred.) *thi⁴q¹* (loc.) *c²e⁴ ška²le⁴*. 'Let's go to the judge's'. (loc.) *a³li² ti⁴²i⁴ hi²* (pred.) *nčoa¹-ni³*. 'Don't come here again'.

Examples of imperative impersonal clause: (pred.) *ka²ta³ma³ča⁴ya³-le⁴* (obj.) *ni⁴ma⁴-le⁴*

(spec.) *ši³ i²a³c²e⁴ n²ai³-na¹*. 'Let their hearts understand concerning our inclusive father'. (pred.) *ka²ta³ma³nta³ya³* (obj.) *?nti¹-na⁴* (time) *ni²ai⁴-vi⁴*. 'Let my son get better now'. (pred.) *ka²ta³nča³* (loc.) *ya⁴-ve⁴*. 'Let them stay there'.

9.1.3. EQUATIONAL CLAUSES all have as an obligatory part the equational-predicate phrase, and in this respect they differ from the declarative, imperative and demonstrative clauses. They differ from one another according to the filler of that obligatory part. Any equational clause may have an independent subject and perhaps one other part, but seldom do they have more than that. (For a discussion of equational verbs see §11.1.1.)

The appearance equational clause may have a recipient, but that part is obligatorily absent from other equational clauses. Examples: (equa.-pred.) *nta³ čq³-le⁴* (subj.) *te⁴hao⁴* (recipient) *ma³ria²*. 'Huautla appears good to Mary'. ('Mary likes Huautla'.)

Examples of the adjectival equational clause: (equa.-pred.) *ce³* (subj.) *ta²q⁴ ši³ kqa⁴-čhe²¹*. 'Much is the money that's needed'. (equa.-pred.) *khai¹ kh³*. 'It is very far'.

Examples of the numerative equational clause: (equa.-pred.) *hao² ma³-ni³* (subj.) *čho⁴ta⁴*. 'There are two people'. (equa.-pred.) *li²koi³ nkhi² ma³-ni³*. 'There are not many'.

Examples of the copulative equational clause: (equa.-pred.) *čho⁴² nia¹³*. 'I'm a woman'. (equa.-pred.) *he² ni¹* (subj.) *ši³ či⁴-nka⁴ ?mi²*. 'That's the one called "pig".'

9.1.4. DEMONSTRATIVE CLAUSES differ from the declarative, imperative, and equational in that they have two obligatory parts—the predicate phrase and another which is the part under attention. It is this demonstrative part which is first in the clause, and if it is a noun it must be accompanied by *he²* 'this, that'. Subject, object, instrumental and other parts can be specified in this way.

The demonstrative clause also differs from the others in that *ši³* is an obligatory

part of the predicate, but the $\acute{s}i^3$ must follow the demonstrative item, and therefore in a clause with optional parts it may be noncontiguous to the verb.

Examples: (subj.) $he^2 \acute{c}ho^4ta^4$ (pred.) $\acute{s}i^3 ki^3$. 'That's the person who went'. (obj.) $he^2 \acute{s}o^4$ (pred.) $\acute{s}i^3 ti^1v^9e^1\acute{s}kia^4$ (subj.) $\acute{c}ho^4ta^4$. 'That's the paper the man is reading'. (subj.) $^?a^3li^2ca^2 he^2 \acute{c}ho^4ta^4$ (pred.) $\acute{s}i^3 kh\acute{e}^2$. 'It's not that man who eats'.

9.1.5. INTERROGATIVE CLAUSES differ from the others in that they must have an interrogative phrase as well as a predicate phrase. The clause may have transitive, intransitive, impersonal, or equational verbs. When, however, hme^1 'what', $^?ya^1$ 'who', or $h\acute{n}a^1-le^4$ 'which' is the interrogative used, the clause must be a demonstrative one.

The interrogative phrase occurs initial in the clause and the thing about which the question is asked immediately follows. Therefore the order of the various phrases varies in accordance with the question asked.

Examples: (inter.) $^?ya^1$ (subj.) $\acute{c}h\acute{o}^42$ (pred.) $\acute{s}i^3 ti^1va^3ne^1$ (obj.) $na^3h\acute{n}o^3$. 'What woman is washing clothes?' (inter.) hme^1 (obj.) $na^3h\acute{n}o^3$ (pred.) $\acute{s}i^3 ti^1va^3ne^1$ (subj.) $\acute{c}h\acute{o}^42$. 'What clothes is the woman washing?' (inter.) $h\acute{n}a^1-le^4$ (equa.-pred.) $\acute{s}i^3 c^?a^4$. 'Which is mine?' (inter.) hme^1 (pred.) $\acute{s}i^3 s^?i\acute{q}^4-ni^3$ (instr.) $\acute{s}i^3 th\acute{i}^1-l\acute{i}^2ve^4$. 'What do you do with what you have?'

When $h\acute{n}a^1$ 'where', ho^1 'how', $k^?ia^7$ 'when', $^?a^1-ni^3$ 'why' are filling the interrogative slot, the clause is other than demonstrative. Examples: (inter.) $k^?ia^7$ (pred.) $khoa^2?ai^4-ni^3$. 'When will you come back?' (inter.) ho^1 (equa.-pred.) $kh\acute{o}q^3$ (loc.) $ya^4 nta^1he^42$. 'How is it there in Rio Santiago?'

When $^?a^1-ni^3$ 'why' is used, it is, in general, in cross reference to $-si^1ni^3$ which is part of the verb. Examples: (inter.) $^?a^1-ni^3$ (pred.) $k^?oa^4to^4ko^3ce^3-si^1ni^3na^1$ (subj.) $\acute{c}h\acute{o}^42$. 'Why is the woman looking at us like that?'

The most common filler of the interrogative slot is $^?a^3$ 'indicator of a yes-no question'. It differs from the other interrogatives

in that it is dependent—it does not occur alone, even in an utterance-response situation. When the $^?a^3$ is preceding anything but the predicate phrase, it occurs in a demonstrative clause. When preceding the predicate, it may occur in anything but a demonstrative or imperative clause.

Examples: (inter.) $^?a^3$ (subj.) $he^2 \acute{c}ho^4ta^4$ (pred.) $\acute{s}i^3 ki^3$. 'Is this the person who went?' (inter.) $^?a^3$ (recipient) $^?a^32$ (pred.) $\acute{s}i^3 si^4ki^3-n\acute{c}ha^4-nai^13$. 'Am I the one you are making talk?' (inter.) $^?a^3$ (equa.-pred.) $hao^2 ma^3-ni^3$. 'Are there two?' (inter.) $^?a^3$ (equa.-pred.) $ci^2ca^2 nta^3$. 'Isn't it good?'

When a yes-no question is asked, the thing about which the information is desired is contiguous to the interrogative. Examples: (inter.) $^?a^3$ (obj.) $he^2 \acute{s}q^4$ (pred.) $\acute{s}i^3 ka^2v^9ai^2-lai^4$. 'Is this the paper you gave him?' (inter.) $^?a^3$ (subj.) hi^32 (pred.) $\acute{s}i^3 ka^2v^9ai^2-lai^4$. 'Are you the one who gave to him?' (inter.) $^?a^3$ (pred.) $ka^2v^9ai^2-lai^4$ (obj.) $\acute{s}q^4$. 'Did you give him paper?'

9.2. DEPENDENT CLAUSES are fillers of the optional slots of a sentence. They are: if-clause, but-clause, purpose, manner, result, time, limiting, although-clause, and *nka*-clause. Each has an introducer plus one of the clause types as described in §9.1. The declarative types are the most frequent, but a few demonstrative, equational, and third person imperative are also used. There are none in my data with second person imperative, and none are interrogative. When the demonstrative construction is a part of a dependent clause, the he^2 'this, that' is not obligatory.

9.2.1. THE *nka*-CLAUSE follows the clause to which it is subordinate. The meaning of *nka*³ is 'subordination'. Any other meaning is derived from the context. Examples: (indep. impersonal) $li^2koi^3 kq\acute{a}^3hti^3-le^4 \acute{c}i^3kq^3\acute{s}o^4nka^1-ve^4$ (*nka*-clause) $nka^3 he^3ki^3c^?ai^2-le^4 kha^4thao^2$. 'The river gods did not get angry because/when gifts were given to them'. (indep. transitive) $koi^3 h\acute{a}^3?ai^1-ve^4 si^1\acute{c}h\acute{e}^21 na^4?mi^3$, (*nka*-clause) $nka^3 va^3te^1nta^1 he^2 ?ni^1-ve^4$. 'The

priest uses that name because/when he baptizes that baby'.

There is another situation in which *nka*³ may be used. If two like dependent clauses are co-ordinate and in sequence, *nka*³ may substitute for the second introducer. (See §9.2.5 where *nka*³ substitutes for the purpose introducer; see §9.2.6 where it substitutes for the limiting introducer; see §9.2.7 where it substitutes for the manner introducer.)

9.2.2. THE TIME CLAUSE has *k²ia⁴ nka³* 'when' as introducer. Example: (time) *k²ia⁴ nka³ he³ma³ he²vi⁴*, (indep. intransitive) *nçoa²¹-ni³ nka³c²i³ çho⁴ta⁴*. 'When this is over, all the people come'.

9.2.3. THE RESULT CLAUSE has *koi³ nka³* 'therefore' as introducer. Example: (indep. impersonal) *k²oa⁴-s²i² me³-le⁴ çho⁴ta⁴sa¹*, (result) *koi³ nka³ thio¹v²e¹-ni³ skoe²la⁴*. 'Thus it is wanted by the officials, therefore they are opening schools'.

9.2.4. THE 'BUT'-CLAUSE has *to⁴nka³* 'but' as introducer. Example: (indep.) *kq³ choa³-le²³*, (but-clause) *to⁴nka³ k²oe¹nta³-nai¹³ šq⁴-le⁴*. 'I can give it to you, but you will make a paper for me'.

9.2.5. THE PURPOSE CLAUSE has *hme¹-ni³ nka³* 'in order to' as introducer. It differs from the other dependent clauses in that *-si¹ni³* is added to the stem of the verb. Examples: (indep. transitive) *v²e¹hca³ne² ni³-[?]nte³ka²sa¹-le⁴ k²e³-ve⁴*, (purpose) *hme¹-ni³ nka³ nta³ s²e³hna³ñai³-si¹ni³ k²e³-ve⁴*. 'They throw dirt on the coffin in order that the dead be buried well'. (indep. impersonal) *ka²ta³se¹-le⁴ se²yo⁴ he² šq⁴-le⁴ bo¹rro¹-ve⁴*, (purpose) *hme¹-ni³ nka³ nta³ s²e⁴-si¹ni³*, (co-ordinate purpose) *k²oa⁴ nka³ ci² ca² [?]ya³ ši³ ho³ koi⁴co⁴-na³*. 'Let the donkey's paper be sealed, in order that all will be well, and that no one will say anything to me'.

9.2.6. THE LIMITING CLAUSE has *sa^{3?}nta³* 'until' as introducer. Examples: (indep.) *ce³² koa³se²*, (limiting) *sa^{3?}nta³ [?]a³li²koi³ ti⁴koa³te³-na³-nia³ (nka-clause) nka³ he² ço⁴ ši³ nta³ kha¹i nka³ nta³ si¹ša¹*. 'I will keep it a long time, until I would not sell again, because the animal that goes well works well'. (indep.

impersonal) *k²ia⁴ s²e³t²a³çoa⁴-le⁴ ki⁴ça⁴-le⁴*, (limiting) *ho³ sa^{3?}nta³ nka³ nta³ s²e⁴-le⁴*, (co-ordinate limiting) *nka³ ci² ti⁴v²i¹š²a¹nki³-ni³ yo⁴nço⁴-le⁴*. 'Then the horseshoe is measured, until it fits well, until his hoof is no longer open underneath'.

9.2.7. THE MANNER CLAUSE has *ho³-s²i²* 'about how' as introducer. Example: (indep. demonstrative) *he² ti³ ši³ he³nta¹ ti¹hna³, ši³ khi³-le⁴ n²ai³-le⁴ (nka-clause) nka³ si¹ka³se¹ kha⁴-le⁴*, (manner) *ho³-s²i² ti¹hna³-ni³*, (co-ordinate manner) *k²oa⁴ nka³ taq⁴ ma³çhe²¹-le⁴*. 'The boy who is in Tehuacán and who writes his father to send a message about how he is, and about how he needs money'.

9.2.8. THE 'IF'-CLAUSE has *ca²* 'if' as introducer. Examples: ('if'-clause) *ca² thi¹ ši¹nkh¹*, (indep. demonstrative) *he² ši³ si¹koi²nta⁴*. 'If there are relatives, they are the ones who take care of him.' (indep. impersonal) *a³li²koi³ kq⁴nta³-le⁴ çho⁴ta⁴*, (if-clause) *ca² to⁴he² çho⁴ta⁴ ši³ ma³-le⁴ v²e¹nta³, si¹si³-le⁴*. 'The person will not get better, if just the people who know native cures take care of him. ('if'-clause) *ca² k²e³ koi⁴ya¹*, (co-ordinate 'if'-clause) *k²oa⁴ ca² taq⁴-le⁴ çho⁴ta⁴ ki³the⁴*, (indep. transitive) *ya⁴ ko³sq²-ni³le⁴*. 'If a dead one dies (if there is a murder), and if money is owed, it is judged there'.

9.2.9 THE 'ALTHOUGH'-CLAUSE has *nta³ ca²* 'although' as introducer. Example: (although-clause) *nta³ ca² to⁴ho³ thi¹-na³ ç²i³*, (indep. intransitive) *si³ša¹-nia¹³* 'Even though I am still sick, I work'.

9.2.10. SECONDARILY DEPENDENT CLAUSES may modify preceding dependent clauses. Examples with secondarily dependent clauses have been given in §7.1 and 8.1. (An alternate solution would treat the secondarily dependent clause as modifying the predicate of the preceding clause.)

10. GRAMMATICAL PHRASE. By special definition here, a grammatical phrase is filler of a slot in a clause. Any filler of a slot in a clause is considered to be a grammatical phrase regardless of its internal structure. Sometimes, therefore, it is simultaneously a single word, or a word sequence, or even a clause.

10.1. A PREDICATE PHRASE is the filler used in the predicate slot of a clause. Predicate phrase types contrast with one another by the lists of verbs in their obligatory parts. They also differ in the way these list differences correlate with permitted-nonpermitted occurrence of the optional parts.

10.1.1. TRANSITIVE VERB PHRASES differ from the others by the list of verbs used. The other parts of the phrase are as follows: intensifiers *khai¹ nka³* 'very,' *n²iç¹* 'forcefully'; negativizer *li²koi³* (but the intensifier and the negativizer do not occur in the same phrase); -*šo¹* 'it is indicated'; one of several modifiers, *nta³* 'well,' *ša¹ti¹* 'soon', etc.; *to⁴* 'only'; aspectual auxiliary verb *he³* 'done,' *ma³* 'it is acceptable', etc.; go-come auxiliary verb *vh²* 'goes', *vh³a³i³* 'arrives', etc.; the obligatory main verb; locational, -*vi⁴* 'here', etc.; emphasis -*ʔni³* 'of course', etc.

Examples of transitive verb phrases: (neg.) *li²koi³* (indicator) -*šo¹* (verb) *ki³choa³*. 'They say he didn't give (it)'. (aux. verb) *koa³i⁴* (main verb) *ka³ko¹*. 'He will go to show (it)'.

10.1.2. INTRANSITIVE VERB PHRASES have a different list of verbs from the transitive phrase, but they have similar optional parts. In the intransitive verb phrase, however, the intensifiers and the auxiliary verb *ma³* 'it is acceptable' are used with greater frequency. (Note that the transitive and intransitive verbs differ also in respect to the correlation of optional presence or obligatory absence of an independent object. This occurs outside the predicate phrase, but within the transitive and intransitive clauses.)

Examples of intransitive verb phrases: (intensifier) *khai¹ nka³* (modifier) *nta³* (verb) *si¹ša¹*. 'He works very well'. (neg.) *li²koi³* (aux. verb) *ma³* (main verb) *si¹ša¹*. 'He is not able to work'. (verb) *ka²nçoa²i²* (emph.) -*ʔni³*. 'You came of course'.

10.1.3. IMPERSONAL VERB PHRASES differ from other verb phrases in that there is obligatory absence of both dependent and independent subject. It also differs from the intransitive verb phrase in that the in-

transitive only occasionally has a dependent recipient (see §11.1.1), whereas it is a frequent part of the impersonal verb phrase.

Examples: (intensifier) *khai¹ nka³* (verb) *ma²çhe²* (dep. rec.) -*le⁴*. 'It is very much needed by him.' (aux. verb) *he³* (main verb) *ki³so³ko³* (dep. rec.) -*na³*. 'It has been found by me.' ('I found it.') (intensifier) *khai¹ nka³* (modifier) *nta³* (verb) *ka³* (dep. rec.) -*le⁴* (obj. phrase) *ç²a¹*. 'A load can be carried by him very well.'

10.1.4. ADJECTIVAL PHRASES (those occurring in the equational-predicate slot of the adjectival equational clause) have an adjective or possessive pronoun as an obligatory part. In addition it may have an intensifier, or a negative. The dependent recipient is obligatorily absent.

Examples: (intensifier) *khai¹ nka³* (adj.) *ç²ai⁴* (subj. phrase) *hi³-vi⁴*. 'You are very bad'. (neg.) *li²koi³* (poss. pronoun) *ç²ai⁴* (subj. phrase) *ç²i²to³-ve⁴*. 'That cat is not mine.' (intensifier) *khai¹ nka³* (adj.) *nta³*. 'It is very good.'

10.1.5. APPEARANCE VERB PHRASE (those occurring in the equational-predicate slot of the appearance equational clause) have two obligatory parts. The first is an adjective, or—infrequently—a noun. The second obligatory part is one of the three verbs, *khi³* 'appearance, in respect to singular things', *khqa³* 'appearance, in respect to plural things', *çç³* 'appearance, in respect to climate', etc. There is obligatory absence of auxiliary verbs and modifiers, but there is optional occurrence of the dependent recipient.

Examples: (adj.) *nta³-la⁴* (verb) *çç³* (loc. phrase) *ya⁴*. 'It's probably pretty there.' (adj.) *ç²ao³* (verb) *khi²ya⁴* 'I'm ugly'. (inter. phrase) *ʔa³* (adj.) *nta³* (verb) *khi³* (dep. rec.) -*li²*. 'Does it look good to you?' ('Do you like it?') (noun) *çho⁴ta⁴* (verb) *khi³*. 'It looks like a man'.

10.1.6. NUMERATIVE VERB PHRASES (those occurring in the equational-predicate slot of the numerative equational clause) have two obligatory parts. The first is a numeral or some kind of measure. The second is the

verb *ma*³ 'is, in relation to quantity'. There is obligatory absence of auxiliary verbs and modifiers. (This verb should not be confused with the impersonal verb *ma*³ 'it is acceptable', or 'possible', which may occur as a complete utterance.)

Examples: (numeral) *hao*² (verb) *ma*³-*ni*³ (subj. phrase) *čo*⁴*ta*⁴. 'There are two people'. *nkhi*² *ma*³-*ni*³. 'There are many'.

10.1.7. COPULATIVE VERB PHRASES (those occurring in the equational-predicate slot of the copulative equational clause) have two obligatory parts. The first is a noun, a pronoun, a possessive pronoun, or—occasionally—an adjective. The second is the verb *ni*¹ 'is, in relation to quality'. There is obligatory absence of the dependent recipient.

Examples: (noun) *či*⁴*ne*⁴*ya*¹ (verb) *ni*¹ (subj. phrase) *he*² *čo*⁴*ta*⁴. 'That person is a carpenter'. (noun) *co*²*ti*³-*na*⁴ (verb) *ni*¹. 'She is my daughter'. (pronoun) *ʔa*³ (verb) *nia*¹³. 'I'm the one'.

10.1.8. DEMONSTRATIVE VERB PHRASES differ from the other types in that an introducer, *ši*³ 'the one which', is obligatory.

Example: (subj. phrase) *he*² *čo*⁴*q*⁴² (introducer) *ši*³ (verb) *ti*¹*va*³*ne*¹ (obj. phrase) *na*³-*hño*³. 'That's the woman who's washing clothes.'

10.2. TYPES OF SUBJECT AND OR OBJECT FILLERS. Six types of fillers are used in the subject and/or object slots of a clause. They contrast one from another by the list of items which fill their obligatory part, and also by the relationship of their constituent parts. The various types follow.

10.2.1. NOUN PHRASES are the most common filler and may be made up of the following parts: *ca*² 'perhaps' (this is translated 'if' when used as the introducer of a see §9.2.8); *to*⁴- 'only'; *he*² 'this, that', or *ko*³ 'that previously identified' (this is translated 'therefore' when the introducer of a clause, see §9.2.3); *hnko*³ 'one, a'; *nka*³*c*²*i*³ 'all, in relation to people', *nka*³*yi*³*he*³ 'all, in relation to things', *hao*² 'two', etc., 'some

kind of measure'; *ʔnti*¹ 'dear little'; the obligatory part—a noun—*ni*³*ʔya*³ 'house', *na*⁴*hča*¹ 'grandmother', etc. (see §11.1.2); *-vi*⁴ 'here', *-ve*⁴ 'there'.

Examples: (subj.) *he*² *ʔnti*¹ *ša*⁴*ʔnta*⁴*ʔnti*¹-*ve*⁴ (pred.) *khe*²*nki*³ (obj.) *škoa*⁴-*le*⁴. 'Those dear little chicks eat the fallen pieces'. (subj.) *nka*³*c*²*i*³ *čo*⁴*ta*⁴-*ve*⁴ (pred.) *ki*³. 'All the people there went'. (pred.) *čo*⁴*a*¹-*le*⁴ (obj.) *ca*² *hnko*³ *ca*² *hao*² *ko*¹*lo*¹. 'He gives them perhaps one perhaps two turkeys'.

If the noun has a third person possessive pronoun (see §11.1.2), it may be followed by another noun. Examples: (subj.) *čo*⁴*ta*²-*ha*³-*le*⁴ *ti*³ (pred.) *ki*³*to*²*ka*³. 'The boy's mule ran'. (manner) *k*²*oa*⁴-*s*² *i*² (pred.) *si*¹*che*¹*l*² *a*³-*ni*³ (subj.) *khoa*⁴*vi*³*šq*³-*le*⁴ *čo*⁴*ta*⁴*na*⁴*ši*²*na*³*nta*¹-*te*⁴*hao*⁴. 'Thus is finished off the wedding of the Huautla people'.

There may be co-ordinate noun phrases in either the object or the subject slot. The co-ordinator is *kao*⁴ 'and'. Example: (pred.) *va*³*ne*¹*hq*³ (obj.) *ncha*³ *mpa*²-*le*⁴ *kao*⁴ *ko*²*rre*⁴-*le*⁴. 'They wash the hands of their compadre and comadre.'

The noun phrase may be discontinuous. In the following example part of the object precedes the predicate, and part follows. Example: (obj.) *he*² *ko*¹*lo*¹-*ve*⁴ (pred.) *vh*²-*ka*²*ni*¹-*le*⁴ (recipient) *mpa*²-*le*⁴ (obj.) *kao*⁴ *hao*² *ni*³*s*⁴ *ni*³*ti*⁴²-, *yao*³*ki*³*ča*¹-, *na*⁴*hme*⁴-, *skqa*⁴-*ka*³*vhe*². 'That turkey there they take to their compadre and two baskets of tamales, and cooked meat, and corn, and ground coffee.'

10.2.2. PRONOUN PHRASES may be used as filler of a subject or object slot. Since, however, there is always a dependent pronoun fused to the verb (third person is zero), when the independent pronoun occurs it adds emphasis. They are: *ʔa*³ 'I', *hi*³ 'you', *he*² 'he, she, it, they', *na*¹ 'we inclusive', *hi*⁴/*ha*⁴/*hi*⁴-*hi*⁴/*ha*⁴-*hi*⁴ (free variation) 'we exclusive', *hq*² 'you plural'. Optional additions preceding the pronoun are: *nka*³ (the combination is more emphatic than the pronoun alone), and *nta*³ *ca*² 'even', as in *nta*³

$ca^2 ?q^3$ 'even I'. Optional additions following the pronoun are: $-šo^1$ 'it is indicated'; $-la^2$ 'maybe'; $-vi^4$ 'here', $-ve^4$ 'there'.

Example: (pro.) $?q^3$ (pred. phrase) $ka^2-va^3ne^3ya^{23}$, (pro.) hi^3 (pred. phrase) $ka^2vi^3šoi^3$ (obj. phrase) $nche^1-ve^4$. 'I washed, you boiled the sweet.' (pred.) $khoia^{13}$ (pro. phrase) $nka^3 ?q^3$. 'I'm going'.

10.2.3. POSSESSIVE PRONOUN PHRASES have a possessive pronoun in the obligatory part. They are: $c^?e^4$ 'his', $c^?a^4$ 'mine', ci^4 'yours', ca^{42} 'ours inclusive', $ca^{42}-hi^4$ 'ours exclusive', caq^{43} 'yours plural'. Optional addition, $-la^2$ 'maybe'. Example: (pred. phrase) $ca^3ka^3ce^3$ (poss. pro.) $c^?a^4$. 'He bought mine'.

10.2.4. DEMONSTRATIVE CLAUSES may be used as a filler of the subject or object slot. It differs from that used as a filler of the obligatory sentence slot (see §9.1.4) in that here the demonstrative he^2 'this' is optional.

Examples: (obj.-dem. clause) $he^2 šq^4 ši^3 choa^1-le^4 cho^4ta^4ša^1$, (pred.) $choa^1-le^4$ (recipient) $na^4?mi^3$. 'The paper that the officials gave to them, they gave to the priest.' (pred.) $khai^1 nka^3 nta^3 vhi^2$ (subj.-dem. clause) $bo^1rro^1 ši^3 ca^3k^?e^2hna^3sq^2 to^3ma^2$. 'Goes very well, the donkey that Thomas rode.' (manner) $k^?oa^4-s^?i^2$ (pred.) $si^1khe^3?i^?a^3-ni^3$ (subj.-dem. clause with included time clause) $s^?oi^1 ši^3 se^3hna^3-le^4 k^?ia^4 nka^3 hnko^3 kha^4vi^3ša^3 s^?e^3-le^4 ši^3-le^4$. 'Thus is finished off the party which is had by them when their children have a wedding.' (subj.-dem. clause) $he^2 cho^4ta^4 ši^3 s^?a^4ha^3?ai^3$ (pred.) ti^1co^2 . 'The person who just came is saying (it).'

10.2.5. DEMONSTRATIVE NOUN PHRASES are composed of a noun, or a pronoun, plus $ši^3$ 'the one which', plus another noun, possessive pronoun, or possessed noun.

Examples: (pred.) te^2 (subj.-dem. noun phrase) $mi^2yo^4-le^4 ši^3 š?i^4$. 'The friends of the man (the groom's friends) dance.' (subj.-dem. noun phrase) $he^2 ši^3 n^?ai^3-le^4 kao^4 ši^3 na^4-le^4 ?nti^1$, (pred.) vha^2kao^4 (obj.) mpa^2-le^4 . 'He who is the father, and (she) who is mother of the baby, talk with their comadre.'

10.2.6. $ši^3$ PLUS DECLARATIVE PHRASE. One type of $ši$ -phrase has the introducer, $ši^3$ 'the one which', plus a declarative clause. It occurs more frequently as filler of the object slot than it does as filler of the subject slot.

Examples: (time) $k^?ia^4$ (pred.) koa^3hnkia^3 (obj.- $ši$ -phrase) $ši^3 koa^4te^3 ?nti^1 ka^3vhe^2-ve^4$. 'Then I will look for one who will cut that dear little coffee.' (manner) ti^1thq^2 (pred.) vi^3nta^3 (obj.- $ši$ -phrase) $ši^3 he^3me^3v^?e^1 čhao^{42}$. 'First we buy one that is almost now laying eggs.'

10.2.7. $ši^3$ PLUS POSSESSIVE PRONOUN OR POSSESSED NOUN. A second type of $ši$ -phrase has the introducer, $ši^3$ 'the one which', plus a possessive pronoun or possessed noun. Example: (time) $k^?ia^4$ (pred.) $nča^4$ (subj.- $ši$ -phrase) $ši^3 nai^3-le^4 čoa^4ta^4ha^3$. 'Then the owner of the mule speaks.'

10.2.8. RELATIVE PHRASES may fill the object, but not the subject, slot of a clause. They are introduced by a relative pronoun, hme^3 'what', $?ya^3$ 'who', or ho^3 'how', and is followed by a noun, a noun phrase, or a $ši$ -phrase.

Examples: (obj.-relative phrase) $ho^3 ye^4$ (pred.) ma^3-na^3 . 'To me it seems a snake.' ('I thought it was a snake'.) (pred.) $ka^2ta^3-co^2-li^2$ (obj.-relative phrase) $hme^3 he^1 ši^3 ka^2-s^?i^1-na^3$. 'Let him tell you what harm he did to me'.

10.3. INSTRUMENTAL FILLERS may be a noun or a specifier phrase (see §10.2, 10.5). In general it is in cross reference to the morpheme- ni^3 which is part of the verb which follows it.

Examples: (instr. -noun phrase) $hnko^3 ya^1$ (pred. with included ni^3) $ca^3k^?e^1-ni^3le^4$. 'He hit him with a stick'. (instr.-noun phrase) $tq^4škoo^4$ (pred. with included ni^3) $i^?e^2čhi^1-ni^3nai^3$. 'Pay me with change.' (instr.-specifier phrase) $to^4t^?a^3ci^4$ (pred. with included ni^3) ki^3-ni^3 (loc.) $nki^3čao^3$. 'Because of you, he went to the ranch.'

10.4 INDEPENDENT RECIPIENT FILLERS may be a pronoun or noun phrase. These occur

in cross reference to one of the dependent recipients which are fused with the dependent subject (see §11.1.1).

Examples: (pred. with intrans. verb and dep. rec.) *skaa⁴-li²* (indep. rec.) *hi³*. 'It will fall in reference to you.' ('You will drop it.') (pred. with trans. verb and dep. rec.) *ki³-si³čha⁴-le⁴* (obj.) *nhig²yao³* (indep. rec.) *ti³*. 'She cooked meat tamales for the boy'. (pred. with impersonal verb and dep. rec.) *li²koi³me³-na³* (indep. rec.) *?a³*. 'It is not wanted by me'.

10.5 SPECIFIER PHRASES are the filler of the specifier slot. It has two obligatory parts *ši³t²a³* or *t²a³* plus a possessive pronoun.

Example: (pred. with dep. rec.) *si⁴he¹-le²3* (obj.) *khoa⁴nta³* (spec.) *ši³ t²a³c²e⁴ co²ti³*. 'I ask a favor of you for the girl'. (obj.) *he²-ve⁴ khoa⁴nta³* (pred.) *ši³ si³he¹3* (spec.) *t²a³c²e⁴ čho⁴ta⁴ša¹*. 'That is the favor that I ask of the officials.'

10.6. MANNER FILLERS are of two types. (1) The manner phrase has an obligatory manner word. Some of them are: *to⁴hnko³ k²a²* 'once', *ti¹thq²* 'first' *k²oa⁴-s²q²* 'thus'. Examples: (manner) *k²oa⁴-s²q²* (pred.) *si¹ki³-tho³sq²* (obj.) *to⁴hme³-ni³ ši³ ?mi²-le⁴*. 'Thus he obeys anything he is told.' (manner) *nki²hnko³ k²a²* (pred.) *ma³ña³* (obj.) *mi²yo⁴-le⁴*. 'Once more their friends gather.'

(2) The equality phrase has the introducer *ho³-ni³* 'as' plus a noun phrase. Example: (pred.) *ve³škq¹* (manner) *ho³-ni³ ca² ši³hča¹-le⁴*. 'He respects them as (he would) his parents.'

10.7. LOCATION SLOT FILLERS are of four types. (1) The location phrase has an obligatory location word. This word may optionally be followed by a noun. Some of the location words are: *ya⁴* 'there'; *?i⁴* 'here'; *ha⁴hi³*, 'inside'; *ha⁴hčō³* 'at the opening of'; *nki²škq⁴* 'in front of', etc. Examples: *ha⁴ya³ka²ša⁴* 'inside the box'; *ha⁴sq² ni²ia³* 'on top of the house'.

(2) Noun or possessive pronoun phrases may also be fillers of the location slot. Example: (pred.) *va¹ya³* (loc.) *ka²ša⁴* (obj.)

?ni¹k²e³. 'They put the dear-little-dead in a box.'

(3) The limiting phrase has the introducer *sa³?nta³/?nta³* 'as far as'. It is followed by a noun. Example: (time) *k²ia⁴* (pred.) *si⁴ka³-se¹* (loc.) *?nta³ hnčī⁴* (obj.) *čho⁴ta⁴-ve⁴?ni³*. 'Then they send the person to Teotitlán'.

(4) The where-phrase is introduced by *hña³* 'where' or *ya⁴ hña³* 'there where'. It is followed by a declarative intransitive or impersonal clause. Examples: (pred.) *thq¹ka³-shao³* (loc.) *hña³ thq¹ na³nta¹*. 'Go look where there is water'. (pred.) *ki³kao⁴* (loc.) *ya⁴ hña³ ti¹hna³ n²ai³-le⁴*. 'They went with (it) to where his father is'.

10.8 INTERROGATIVE SLOT FILLERS were discussed in §9.1.5.

10.9. TIME SLOT FILLERS are of five types.

(1) A time phrase has an obligatory time word, which optionally may be preceded by *sa³?nta³/?nta³* 'since, until'. Some of the time words are: *ni²ai⁴-vi⁴* 'today', *nko³hña⁴* 'yesterday', *k²ia⁴* 'then'. Examples: (time) *nko³hña⁴* (pred.) *ki³*, 'He went yesterday'. *?a³ ci²-ni¹ ?nta³ nko³hña⁴*. 'Has it been missing since yesterday?'

(2) A noun phrase. Example: (pred.) *va³-tio²ko²kao⁴* (time) *hnko³ ni⁴thē⁴*. 'They stay awake with (him) one night.'

(3) A demonstrative clause. Example: (time) *he² ni⁴čhi³ ši³ v²i¹hna³čoa⁴-le⁴ mi²yo⁴-le⁴*, (pred.) *ma³ña³* (subj.) *nka²c²i³*. 'The day that he tells his friends, everybody gathers.'

(4) When a *ši*-phrase is used as a filler of the time slot, there is usually an auxiliary verb with a completed aspect. The main verb is frequently followed by *k²ia⁴* 'then'. Example: (time) *ši³ he³ ki³s²e³nta³*, *k²ia⁴* (pred.) *ca³kha³?a¹ši²*. 'After it was made, then they took (it) away'.

11. GRAMMATICAL WORD. A grammatical word is a filler of a slot in one of the various types of grammatical phrases.

Independent grammatical words are, in general, found only in the obligatory slot of a phrase. When, however, words which occur in these obligatory slots also occur in optional slots of other phrases, they are still

treated as independent words even when occurring in those optional slots. Any independent grammatical word may on occasion constitute a complete utterance under conditions of normal discourse.

Dependent grammatical words are, in general, found only in optional slots of a phrase. Dependent grammatical words have not been found constituting a complete utterance. Words which fill obligatory slots but which never constitute a complete utterance are also considered to be dependent (see §11.2.2).

Both independent and dependent grammatical words are simultaneously phonological words. There are, however, a few elements whose distributional characteristics suggest their treatment as dependent grammatical words but since they are phonologically dependent they are treated here as semiwords.

These semiwords are as follows: (1) The introducers *nka*³ and *šz*³ and the interrogative *ʔa*³ (see §11.2.2, 9.1.5).

(2) Certain phrase parts are also semiwords: *to*⁴ 'only' is phonologically dependent on the following item. The parts *-šo*¹ 'it is indicated', *-vi*⁴ 'here', *-ʔni*³ 'of course' are phonologically dependent on the preceding item. (see §10.1.1).

(3) Certain parts of words (see §11.1.1) are semiwords: the dependent recipient, 'augmentation' *-sa*³, 'doubt' *-la*², 'relationship' *-ni*³.

11.1. INDEPENDENT GRAMMATICAL WORDS can be grouped into eight parts of speech in accordance with their distribution in the obligatory slots.

11.1.1. A VERB is the filler of the obligatory slot of a verb phrase. The verb has fused forms consisting of person with stem and at times with an overlapping fusion of aspect. These lead to a very large number of regular and irregular forms. Since these were described in K. L. Pike, 1948, pp. 106-64, only the nonfused forms of the dependent subject suffixes and the aspect prefixes are listed here.

The dependent subject suffixes are obligatorily present in transitive and intransi-

tive verbs. They are: *-a*³ 'first person', *-i*³ 'second person', *zero* 'third person', *-a*² 'first person inclusive', *-i*⁴ 'first person exclusive', *-o*³ 'second person plural'.

Examples: *si*¹*cho*² 'he toasts (it)', *si*³*choa*²³ 'I toast (it)', *ni*²*choi*²³ 'you toast (it)', *ni*²*cho*²³ 'you plural toast (it)', *ni*²*choi*²⁴ 'we exclusive toast (it)', *ni*²*choa*² 'we inclusive toast (it)'.

The nonfused forms of the aspect prefixes are: *ki*³- 'completed', *koi*⁴- 'incomplete', *ti*¹- 'continuing', *ka*²- 'recently completed', *ka*²*ta*³- 'to order to do it', *éq*³- 'eventually', *s*²*a*⁴- 'soon'.

Examples: *ki*³*si*³*cho*² 'he toasted (it)', *koi*⁴*ti*⁴ 'it will burn', *ti*¹*ti*² 'it is burning', *ka*²*ti*² 'it burned', *ka*²*ta*³*ti*² 'let it burn', *éq*³*kq*⁴*-le*⁴ 'eventually it will be known by him', ('He will learn some day.')

There is an optional dependent recipient which fuses with the dependent subject as indicated in the chart. The action of the verb is directed to, from, or concerning, the person or thing indicated by the dependent recipient.

Examples: *koa*³*ce*³*-le*²³ 'I will buy (it) for you'. (Ambiguous with, 'I will buy (it) from you'.) *t*²*ai*²*-nai*¹³ 'Give (it) to me'. *ki*³*choa*³*-na*³ 'He gave (it) to me'.

Fusion of Dep. Recipient with Dep. Subject

RECIPIENT	SUBJECT	
3rd sing. and plur.	and 3rd sing. and plur.	<i>-le</i> ⁴
1st sing.	and 3rd sing. and plur.	<i>-na</i> ³
2nd sing.	and 3rd sing. and plur.	<i>-li</i> ²
2nd* plur.	and 3rd sing. and plur.	<i>-ʔno</i> ³
1st plur. exc.	and 3rd sing. and plur.	<i>-na</i> ³ <i>hi</i> ⁴
1st plur. inc.	and 3rd sing. and plur.	<i>-na</i> ¹
3rd sing. and plur.	and 1st sing.	<i>-le</i> ⁴
2nd sing.	and 1st sing.	<i>-le</i> ²³
2nd* plur.	and 1st sing.	<i>-ʔno</i> ³

* These fused forms are preceded by a tone ⁴ which results in a down-glide on the preceding syllable unless that syllable already has tone ⁴.

3rd sing. and plur.	and 2nd sing.	- <i>lai</i> ⁴
1st sing.	and 2nd sing.	- <i>nai</i> ¹³
1st plur. exc.	and 2nd sing.	- <i>nai</i> ³ <i>hi</i> ⁴
3rd* sing. and plur.	and 2nd plur.	- <i>lao</i> ³
1st sing.	and 2nd plur.	- <i>nao</i> ¹³
1st plur. exc.	and 2nd plur.	- <i>nai</i> ³ <i>hi</i> ⁴
3rd sing. and plur.	and 1st plur. exc.	- <i>lai</i> ⁴ <i>hi</i> ⁴
2nd sing.	and 1st plur. exc.	- <i>lai</i> ¹ <i>hi</i> ⁴
2nd plur.	and 1st plur. exc.	- <i>lai</i> ³ <i>hi</i> ⁴
3rd* sing. and plur.	and 1st plur. incl.	- <i>le</i> ²

There are optional indicators of 'augmentation' -³*sa*³ (This is preceded by tone ³ which results in a down-glide if the preceding syllable has tone ¹ or tone ².), 'doubt' -*la*², 'relationship' -*ni*³ or -*si*¹*ni*³ which fuse with the dependent subject when they immediately precede it.

The stem of a transitive, intransitive, or impersonal verb is frequently a compound one. The first part must be predicating, and and is one of a list of about 150 verbs, most of which may be the entire filler of the obligatory slot. A few have not been found apart from the compound form.

This verbal part combines with a noun, an adjective, another verb, or a directional to form a compound stem of two parts. The third part of a compound stem is usually a directional: -*sq*² 'on top of', -²*nčo*² 'between', -*nki*³ 'below', etc. (See Cowan, 1947 for a discussion of directionals.)

Examples: *si*¹*tq*²*nthai*² 'he defends' (*tq*² 'fierce', -*nthai*² 'in behalf of'); *ve*³*čo*⁴*ta*⁴ 'he respects' (*ve*³ 'he knows', *čo*⁴*ta*⁴ 'person'); *v*⁹*e*¹*se*³ 'he whistles' (*se*³ 'he sings', *v*⁹*e*¹ 'he hits').

Equational verbs differ from other verbs in that even though they are phonologically independent, they are grammatically dependent; they cannot be used as a complete utterance even in answer to a question. The adjective equational predicate, the appearance equational verbs *khi*³, *čq*³, *khq*³, and the copulative equational *ni*¹ indicate person, but do not indicate aspect. The numerative equational verb *ma*³ indicates aspect but not person.

11.1.2. A NOUN is a filler in the obligatory slot of a noun phrase. There are three types: personal, nonpersonal, and relational.

The personal nouns have fused possessive pronouns which are the same as the dependent subjects fused to a verb (see §11.1.1). Example: *škq*⁴ 'his eye', *škq*⁴ 'my eye', *škq*³ 'your eye'.

Nonpersonal nouns have nonfused possessive pronouns. Example: *na*⁴-*na*⁴ 'my mother', *na*⁴-*li*⁴ 'your mother', *na*⁴-*le*⁴ 'his mother', *na*⁴-*na*¹ 'our incl. mothers', *na*⁴-*na*⁴*hi*⁴ 'our exc. mothers', *na*⁴-*no*³ 'your plur. mothers' (K. L. Pike, 1948, pp. 95-106).

The relational nouns are like the non-personals except that they never have the down-glide in pitch which is characteristic of the series phonological phrase (see §4).

The stem of a noun can be simple, or it can be a compound. Example: *n*⁹*ai*³*či*¹*ko*³-*va*³*te*¹*nta*¹ 'baptismal godfather' (*n*⁹*ai*³ 'father', *či*³*ko*³ 'holy', *n*⁹*ai*³*či*³*ko*³ 'godfather', *va*³*te*¹ 'he covers', *na*³*nta*¹ 'water', *va*³*te*¹*nta*¹ 'he baptizes'); *he*² *ni*¹ *n*⁹*ai*³*či*³*ko*³*va*³*te*¹*nta*¹-*na*⁴. 'He is my baptismal godfather.'

11.1.3. A PRONOUN fills the obligatory slot of type two of a subject phrase (see §10.2.2). Example: (subj.-pro.) *h**q*² (pred.) *k*⁹*oa*⁴*ki*³*n*⁹-*i**q*²³. 'You plur. did it'.

11.1.4. A POSSESSIVE PRONOUN fills the obligatory slot of type three of a subject or object phrase (see §10.2.3). Example: (pred.) *i*⁹*ai*²-*nai*¹³ (obj.-poss. pro.) *ci*⁴. 'Give me yours.'

11.1.5. AN ADJECTIVE is a filler in the obligatory slot of a predicate phrase in an adjectival-equational clause (see §10.1.4). Example: (equa.-pred.) *nta*³ (subj.) *čo*⁴*ta*⁴. 'He is a good person'.

11.1.6. A TIME WORD fills the obligatory slot of type one of a time phrase (see §10.9). Example: (time) *nčq*³ (pred.) *khoia*¹³. 'Tomorrow I will go'.

11.1.7. A MANNER WORD fills the obligatory slot of type one of a manner phrase (see §10.6). Example: (manner) *ta*⁴*nhi*⁹ (pred.) *t*²*so*⁴*thai*⁴ (time) *nčq*³. 'Get up early tomorrow.'

11.1.8. A SPECIFIER WORD fills the obligatory slot of a specifier phrase (see §10.5). Example: (pred.) *ka²ta³se³* (spec.) *ši³ t³a³ci⁴* (time) *ni⁴čh³ nka³ nčaq³*. 'Let them sing for you every day.'

11.1.9. CLAUSE FILLERS FOR GRAMMATICAL PHRASES. If the filler of a grammatical phrase is a clause, it in turn contains a sequence of phrases with independent words in their obligatory slots, and dependent ones in their optional slots. Thus, one grammatical phrase may contain a sequence of words of various parts of speech. Example: (pred. phrase) *ha³ai³* (subject phrase with introducer, verb, noun) *ši³ ca³ka³ce³ čhao⁴*. 'The one who bought eggs came'.

11.2. DEPENDENT GRAMMATICAL WORDS are divided between those which occur in optional slots and those which occur in obligatory slots.

11.2.1. OPTIONAL SLOT FILLERS. The most common dependent grammatical words which fill optional slots are: the demonstratives *he²* 'this', *koi³* 'that'; the locationals *-vi⁴* 'here', *-ve⁴* 'there', *hq¹* 'over there'; *-šo¹* 'it is indicated'; intensifiers *khai¹ nka³* 'very', *n²q¹* 'forcefully'; auxiliary verbs (see K. L. Pike, 1948, pp. 136-37); the negative *?a³li²-koi³*; the co-ordinators *kao⁴*, *k²oa⁴* 'and'.

There are a number of allomorphs of the negative morpheme. There is free variation in that the initial *?a³* may be absent. The other allomorphs occur in accordance with their distribution as follows:

(1) *?a³li²koi³* occurs when part of a predicate phrase of the independent declarative clauses and the independent adjectival or appearance-equational clauses. Example: *he² čho⁴ta⁴ li²koi³ čhao¹nte³*. 'The man doesn't allow (it)'.

(2) *ci² ca²* (optionally the *ca²* is omitted) is used in an interrogative clause, and in any dependent clause but the limiting dependent clause. It also occurs when part of a *ši*-phrase.

Examples: *?a³ ci² ca² he² čho⁴ta⁴ ši³ čhao¹?-nte³*. 'Isn't it this person who allows (it)?' *kqa²hti²-le⁴ nka³ he² čho⁴ta⁴ ci² ca³ čhao¹nte³*.

'He is angry because the person doesn't allow (it)'. *he² čho⁴ta⁴ ši³ ci² ca² čhao¹nte³, ki³*. 'The person who doesn't allow (it) left.'

(3) *?a³li² ~ ?a³li² ca²* (free variation) occurs when part of a nonpredicate phrase in a declarative or demonstrative clause. It also occurs when part of an equational-predicate phrase in the copulative and numerative equational clauses.

Examples: *?a³li² ?ya³ th¹*. 'Nobody is present'. *?a³li² he² čho⁴ta⁴ ši³ čhao¹nte³*. 'It isn't that man who allows (it)'. *?a³li² he² h² čho⁴ta⁴ ši³ čhao¹nte³*. 'That's not the man who allows (it)'.

(4) *?a³li²... h²* occurs with imperative clauses. Examples: *?a³li² v² ai²?nte³-h²lai⁴*. 'Don't give him permission'. *?a³li² k²oa⁴-h²ma³-li²*. 'Don't be concerned'.

The co-ordinator *kao⁴* occurs between nouns, or between demonstrative noun phrases; *k²oa⁴* occurs between other co-ordinates. The two may occur in sequence at the beginning of a phonological sentence if the preceding phonological sentence ended in the middle of a grammatical phrase. This unusual distribution is due to the fact that *k²oa⁴* but not *kao⁴* may be initial in a phonological sentence.

Examples: *ca³ki³ntai⁴-hi⁴ bo¹rro¹, kao⁴ na⁴-ši¹*. 'We bought donkeys and horses'. *ha²?-ai³ka³ce³ na⁴hme¹, k²oa⁴ ha²?ai³ka³ce³ yao³*. 'He came to buy corn; and he came to buy meat.'

11.2.2. OBLIGATORY SLOT FILLERS. Dependent grammatical words which fill obligatory slots in a grammatical phrase, but which never occur as complete utterances, are also considered dependent. They are: the indicator of a yes-no question, *?a³*; the predicating part of the equational-predicate phrases, specifically, *khi³/khqa³/čq³* 'it appears', *ni¹* 'is, in quality', *ma³* 'is, in quantity'; the introducers.

The introducers are divided into those which introduce phrases, those which introduce clauses, and those which may introduce both.

Those which introduce phrases, but never

clauses, are obligatory to the phrase they are introducing. Introducers to a relative phrase (see §10.2.8) are *ho*³ 'how', *hme*³ 'what', *?ya*³ 'who'; introducer to a where-phrase *hñā*³ 'where'; introducer to a specifier phrase *šī*³ *tʰa*³ or *tʰa*³ 'concerning'; the introducer *šī*³ is used in several phrases: the demonstrative verb phrase, the demonstrative noun phrase, the *šī*-phrase (see §10.1.8, 10.2.5-7, 10.9).

Those which introduce clauses are obligatory to the clause. They are: *nka*³ 'sub-

ordination', *kʰia*⁴ *nka*³ 'when', *ko*³ *nka*³ 'therefore', *to*⁴ *nka*³ 'but', *hme*⁴ *ni*³ *nka*³ 'in order to', *sa*³ *?nta*³ 'until', *ho*³ *-sʰi*² 'about how', *ca*² 'if', *nta*³ *ca*² 'although' (see §9.2).

Four of the clause introducers (*nka*³ 'subordination', *sa*³ *?nta*³ 'until', *ca*² 'if', *nta*³ *ca*² 'although') may also be used to introduce a phrase. At such times they are followed by pronouns, time words, or location words—not verbs. Their meanings differ slightly in the two environments (see §10.2.2, 10.7, 10.9).

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