

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

SUMMER INSTITUTE OF LINGUISTICS PUBLICATIONS
IN
LINGUISTICS AND RELATED FIELDS

PUBLICATION NUMBER 9

EDITOR

Benjamin F. Elson

EDITORIAL COMMITTEE

Kenneth L. Pike

Robert E. Longacre

Viola Waterhouse

**STUDIES IN
PERUVIAN
INDIAN LANGUAGES: I**

**A Publication of the
SUMMER INSTITUTE OF LINGUISTICS
OF THE
UNIVERSITY OF OKLAHOMA**

Norman

© Summer Institute of Linguistics 1963

noviembre, 1963 primera edición

Esta edición consta de 1,000 ejemplares

Derechos Reservados

por el

Instituto Lingüístico de Verano, A. C.

Héroes 53 México, D. F.

Impreso en México Printed in Mexico

1M20522.

3-038

Editor's Note

The seven articles which comprise this volume describe, in part, the structures of some of the languages spoken in eastern Peru. The data were gathered and the articles written as part of the Summer Institute of Linguistics field program in that country. The Institute currently has 31 languages under investigation in eastern Peru, so additional studies of these languages will be forthcoming.

Five of the articles are syntactic studies cast in the tagmemic format developed by Kenneth L. Pike; indeed, his influence is apparent in all of the articles. The last two articles deal with the phonology of the languages under attention.

Mary Ruth Wise served as consultant on many of the articles. Viola Waterhouse has served as Assistant Editor for the volume, and Lucille Schneider gave valuable assistance in preparing the manuscripts for printing.

For convenience of composing the book the symbol Δ has been used where the authors of the manuscripts used \bar{i} .

Table of Contents

| | | |
|---|--|-----|
| 1 | EMIC CLASSES WHICH MANIFEST THE OBLIGATORY TAGMEMES IN MAJOR INDEPENDENT CLAUSE TYPES OF AGUARUNA (JIVARO) | 1 |
| | by Mildred L. Larsen | |
| 2 | THE STRUCTURE AND CONTEXTS OF WITOTO PREDICATES IN NARRATIVE SPEECH | 37 |
| | by Eugene E. Minor and Eugene E. Loos | |
| 3 | CONTRASTIVE FEATURES OF CANDOSHI CLAUSE TYPES | 67 |
| | by Lorrie Anderson and Mary Ruth Wise | |
| 4 | NONCONTINGENT DECLARATIVE CLAUSES IN MACHIGUENGA (ARAWAK) | 103 |
| | by Betty A. Snell and Mary Ruth Wise | |
| 5 | QUITO SYNTAX | 145 |
| | by Robert and Elizabeth Eastman | |
| 6 | ARABELA PHONEMES AND HIGH-LEVEL PHONOLOGY | 193 |
| | by Furne Rich | |
| 7 | THE PHONOLOGICAL HIERARCHY OF CASHINAHUA (PANO) | 207 |
| | by Kenneth M. Kensinger | |
| | BIBLIOGRAPHY | 219 |

6

ARABELA PHONEMES AND HIGH-LEVEL PHONOLOGY

by

Furne Rich

0. Introduction
1. Consonantal contrasts
2. Consonantal variants
3. Vocalic contrasts
4. Vocalic variants
5. Syllable
6. Stress group
7. Phonological word
8. Phonological phrase

0. Introduction. The purpose of this paper is to dis-

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

cuss the phonology of Arabela.¹ The discussion will include not only the phonemes but the phonological units discovered at higher levels in the phonological hierarchy including syllable, stress group, phonological word, and phonological phrase.

1. Consonantal contrasts. Consonant phonemes include: stops p, t, k, /'pinyu/ 'to hit', /'tinyu/ 'to fall', /'kinyu/ 'to stay'; fricatives s, š, /'siyokwa/ 'tucuayo bird', /'šiyokwa/ 'grease'; nasals m, n, and h (note the nasal quality of [h]), /'miyano/ 'plaything', /'niyano/ 'he is coming', /'hiyani/ 'old woman'; vibrant r, /'riyano/ 'he is breathing'; and semiconsonants w and y, /'tawe/ 'foreigner', /'hayunu/ 'pulling'.

Although /n/ and /r/ are clearly separate as shown in these illustrations: /'ninyu/ 'to come', /'rinyu/ 'to breathe', /'nanu/ 'wild', /'ranu/ 'to give birth', there is some fluctuation of the two phonemes by most speakers in a limited number of morphemes: /'nyuryuku/ or /'ryuryuku/ 'egg'.

2. Consonantal variants. The phoneme /k/ has allophones [k], [x], [g], and [g̃]. The allophone [k] occurs initial in the phonological phrase (see 8). The other allophones occur progressively and freely more lenis from [k] to [g̃] as listed, within the phonological phrase, due to

¹Arabela is a language spoken by some 50 civilized Indians (and a possible unknown number yet untouched) in the northern tip of Peru near the Ecuador border. They are located on the Arabela River, a tributary of the Curaray. Arabela is a member of the Zaparo language family.

I am indebted to my husband, Rölland Rich, for the grammatical materials in this paper; to Viola Waterhouse and especially to Eunice Pike for help in the analysis of the high-level phonology and presentation of the data.

ARABELA

a decrescendo of intensity over this unit. For example, note the variants of the /k/ of ['kɪʔ] /'ke/ 'father', in ['nɑ'xɪʔ] /'na'ke/ 'his father', ['ka'nɑɑ'gɪʔ] /'ka'naa'ke/ 'our (excl.) father'; cf. also ['saa'goʔ] /'saa'ko/ 'corn', where this vowel sequence within the word often and optionally leads to [g]. Stress can hinder the progress of this decay of intensity, causing an interruption in the above order; that is, when a stressed syllable occurs within the phonological phrase, a more fortis allophone may occur after a more lenis one: ['ka'šæga'gwar:'tuʔ] /'ka'šaka'kwar'tu/ 'pants'. The gradation of these allophones varies according to the amount of decrescendo over a phonological phrase (note 8) and also with different speakers.

The phoneme /r/ has both flap [r] and trill [r:] allophones. There is fluctuation between the two in stressed syllables, some speakers using one more than the other. In one of our tapes, an entire narrative totally lacks the trilled allophone. Another speaker had fluctuation between flap and trill especially at the beginning of a phonological phrase. As noted above, in unstressed syllables of type 8 (see 5) the trill occurs (as a lengthened allophone); in other unstressed syllables the flap occurs: ['sa'par:'tuʔ] /'sa'par'tu/ 'shoulder blade', ['tukuruʔ] /'tukuru/ 'palm leaf'.

The phonemes /t/, /n/, /š/, /r/, and /k/ have lengthened allophones which occur preceding homorganic consonant² and constitute a phonemic syllable of type 8. This syllable is always unstressed: ['m̩wɪræt:'tyɪnuʔ] /'mwerat'tyenu/ 'cause to be seen', ['m̩ɑn:tɪʔ] /'mante/ 'moth', ['h̩yuuš:'šænoʔ] /'hyuuš'šano/ 'where I fished', ['sa'par:'tuʔ] /'sa'par'tu/ 'shoulder blade', ['karak:-'koħwɑʔ] /'karak'kohwa/ 'type of owl'.

²The phoneme /š/ also has a lengthened allophone preceding the cluster /ty/: ['mokoš:'tyægaʔ] /'mokoš'tyaka/ 'palm fruit'.

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

Some of the morphemes involved have another--slower and fuller--allomorph in which a vowel occurs between the two consonants, such as /ti/ ~ /t/ 'causative', in /'mwerati'tyenu/ ~ /'mwerat'tyenu/ 'cause to be seen', or /'manate/ ~ /'mante/ 'moth', /'karaka'kohwa/ ~ /'karak'kohwa/ 'type of owl'. For other morphemes, however, only the allomorph with the lengthened consonant has been noted even in slow speech.

The phoneme /n/ has a further allophone which is lengthened and has a voiced stop release. It occurs only preceding /r/: ['naa:n:^driʔ] /'naanri/ 'type of demon'.

An alternate interpretation of these long consonants which are considered to be phonemic syllables would be to treat them as portmanteau phones, simultaneously representing the consonant plus some one of the vowels which had been lost, leaving compensatory lengthening. This would be an attractive solution had the consonants resulting from loss of different vowels consistently developed contrastive vowel colorings. Since, however, vocalic contrasts are often completely neutralized, the present solution was considered preferable.

When two stressed syllables are contiguous, the consonant in the second stressed syllable may have a half-long allophone; this length is not as long as that of the lengthened allophones described above: ['po'k·onaʒiʔ] /'po'konaki/ 'yellow', ['pa'p·ana'haʔ] /'pa'pana'ha/ 'hollow'. When only the first of two syllables is stressed, any consonant following it--except semiconsonants or h--may be slightly lengthened but not as much as in the circumstance just described: ['rup·o'honʊʔ] /'rupo'honu/ 'to stick together', ['tin·ya'kariʔ] /'tinya'kari/ 'afternoon'. Both of these lengthenings are more likely to be evident near the beginning of the phonological phrase.

Semiconsonants /w/ and /y/ have nasalized allophones

when following nasals, whether contiguously or separated by intervening vowel: ['myænu] /'myanu/ 'swallow', ['huwə?] /'huwa/ 'a yellow bird'. They have further allophones³ when they occur final in a syllable which comprises a phonological word at the end of a phonological phrase. In this position the phonological phrase final stress carries over to the semiconsonant giving it a prominence which makes it appear vocalic: ['nə'ɪ?] /'nay/ 'stinging ant', ['mæ'ʊ?] /'maw/ 'mushroom'.

3. Vocalic contrasts. There are five vowel phonemes: i, e, a, o, and u: /'ni'kyaa/ 'is pouring it out', /'nee'kyaa/ 'is lying on its back', /'na'nee/ 'its half', /'na'naa/ 'he is bathing', /'maan/ 'woodpecker', /'noonu/ 'to be pained', /'sowaka/ 'wall', /'suwaka/ 'a type of fish'.

4. Vocalic variants. A vowel, a sequence of vowels, or a sequence of vowels separated by y or w have nasalized allophones when following nasals: ['hənu?] /'hanu/ 'to fly', ['ninyu?] /'ninyu/ 'to come', ['monu?] /'monu/ 'to kill', ['maənu?] /'maan/ 'woodpecker', ['nuwə?] /'nuwa/ 'partridge', ['hiyəni?] /'hiyani/ 'old woman', ['nyææ'ri?] /'nyaa'ri/ 'he laid it down'.

Vowels have varying degrees of length depending upon their location in the stress group and in the phonological word. A vowel which is in the margin of the stress group (an unstressed syllable) is very short. A vowel in the nu-

³ An alternate solution would be to consider that the occurrence of the stress makes it necessary to phonemicize the final segments as vowels /i/ and /u/. This would set up allotypes of syllable type V as follows: allosyllable V₁ consists of vowels of the same quality as the preceding vowel, and is never stressed. Allosyllable V₂ consists of vowels i and u when they occur as final syllables of a phonological phrase final phonological word, and is always stressed. V syllables occur only following CV or CcV syllables.

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

cleus of the stress group (the stressed syllable) may be slightly longer, [V·]: ['pwt·tɪn_Δ'hwa·naa 'gi·nyu?] /'pwetena'hwanaa 'kinyu/ 'all were there'. This length is not as long, however, as a phonemic sequence of two like vowels as shown in the sequence /naa/ of the above example. Phonological words which are not phonological phrase final, especially in slow speech, optionally end in a soft, lengthened vowel which fades in intensity: ['na_Δ'sɪxu'ri·'tɪ?] /'na'seke'ri 'te/ 'did he say it?'.
 When occurring final in phonological phrase type 3, vowels may be weakened to voicelessness (see 8).

The phoneme /a/ has allophones [a], [æ], [ɛ], [ɔ], [ʌ]. The allophone [a] occurs except in the environments now described. The allophone [æ] occurs either immediately following, or in the syllable following /i, e, ɛ, or y/: ['ni_Δ'tyænu?] /'ni'tyanu/ 'to carry on the back', ['mɥeræti·'tytnu?] /'mwerati'tyenu/ 'cause to be seen', ['hyuuš:šæ·no?] /'hyuuš'šanol 'where I fished', ['myænu?] /'myanu/ 'swallow'. The allophone [ɛ] fluctuates with [æ] especially in short, rapid, unstressed syllables: ['niy_Δno?] or ['niyæ·no?] /'niyano/ 'he is coming'. The allophone [ɔ] occurs between syllables containing back vowels: ['kuwɔxo?] /'kuwako/ 'hole', ['kuso'row_Δ?] /'kusa'rowa/ 'veins'. The allophone [ʌ] occurs in other short, rapid, unstressed syllables: ['hiyæ pa'hama'hiny_Δ?] /'hiya pa'hama'hinya/ 'where the sun comes up', ['koma'h_Δi?] /'koma'hi/ 'over there'. The allophone [ʌ] also occurs in stressed syllables which are final in the phonological phrase. Note the change of allophones from [a] to [ʌ] in the final stressed syllable of the word /'ma'riya'ta/ below according to its position in the phonological phrase. The allophone [a] occurs when the word is medial in the phrase, but it is replaced by the allophone [ʌ] when the word is final in the phrase: ['ma'riy_Δ'ta 'kyænu 'panan:t_Δ?] /'ma'riya'ta 'kyanu 'panan'ta/ 'go to-

ARABELA

gether with the sun', [nə'stɕinu mə'riyə'taʔ] /'na'sekinu mə'riya'ta/ 'he says, "together"'. (See 8 on phonological phrase and its decrescendo and effects.)

The phoneme /e/ has allophones [e̞] and [u]. [e̞] occurs following nasals: [n̥e̞nuʔ] /'neenu/ 'to turn over', [n̥e̞yæ'tuʔ] /'neya'tu/ 'daughter', [h̥e̞eɣiʔ] /'heeke/ 'termite', [m̥we̞eɣur:h̥unuʔ] /'mweeɣur'hunu/ 'wiggling'. The allophone [u] occurs elsewhere: [kroniʔ] /'keroni/ 'deep', [tokwiʔ] /'tokwe/ 'clothes'.

The phoneme /u/ has allophones [u] and [u]. [u] occurs before /r/: [suroʔ] /'suro/ 'chorro monkey', [tukuruʔ] /'tukuru/ 'palm leaf'. [u] occurs elsewhere: [n̥unuʔ] /'nununu/ 'light beaming'.

5. Syllable. In Arabela the syllable represents the basic unit of timing; all syllables have roughly the same timing. For the purpose of discussing the distribution of phonemes in syllables, three classes of phonemes are distinguished: consonants (p, t, k, s, ʃ, m, n, h, r) represented by C; semiconsonants (w, y) represented by c; and vowels represented by V. The following syllable patterns occur: CV, cV, ccV, CcV, CVc, cVc, CcVc, C, V, and Vc.

(1) In the data syllable CV is found composed of each consonant and vowel combination except *mu: /'po'suna'ha/ 'short person', /'po'konaki 'te/ 'it is yellow?'.
 (2) In syllable pattern cV, when the semiconsonant is w the syllables found in the data are we and wa: /'tawe/ 'foreigner', /'makiwa/ 'sleep again'. When the semiconsonant is y the syllables found are ya, yo, and yu: /'kaya/ 'man', /'kwayo'hwa/ 'small parrot', /'haayunu/ 'pulling'.

(3) In syllable pattern ccV, the only combinations found in the data are ywa and wye: /'tyuywa/ 'it is landing (a bird)', /'nariwe/ 'its bottom'.

(4) In syllable pattern CcV, when the semiconsonant is

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

w the syllables found in the data are pwi, pwe, mwe: /'ru-'pwiika/ 'sticky', /'pweya/ 'people', /'mwenu/ 'to strain'; kwa, kwe, hwa: /'kwanu/ 'to swim', /'tokwe/ 'clothes', /'hwaka/ 'ashes'. When the semiconsonant is y the syllables found are mya, tya, nya, kya, hya: /'myanu/ 'to swallow', /'hyanu/ 'to spear'; tyo, ryo: /'ryonu/ 'to fish with a hook'; tyu, nyu, ryu, kyu, hyu: /'tyunu/ 'to close', /'kyuyaka/ 'hawk'; and tye: /'mwerati'tyenu/ 'cause to be seen'.

(5) In syllable pattern CVc, when the semiconsonant is y the syllables found are pay, may, say, tay, kay, hay: /'mayninya/ 'good', /'kaynyu/ 'to choke'. When the semiconsonant is w there is the one sequence kaw: /'see'kaw/ 'finely ground manioc'.

(6) Syllable cVc occurs only as yaw and yay: /'tyuhwe-'yaw/ 'beads', /'kere'yayte/ 'lots'.

(7) Syllable pattern CcVc occurs only as kway, hway, kwaw and kyaw: /'kwayninyu/ 'to hunt', /'hwaynyu/ 'anger', /'suwo'kwaw/ 'ground corn', /'rii'kyaw/ 'finely ground food'.

Certain morphemes in Arabela have allomorphs of two different syllable types, such as CV and CcV, or CVc and CcVc, depending upon the environment. Allomorphs that begin with Cy are found in environments immediately following i or y. Allomorphs that begin with C are found in other environments. The morpheme /ta ~ tya/ 'with', may be seen in /'maa'hi'tya/ 'with the woman' and /'ru'paa'ta/ 'with the mouth'. Some morphemes have allomorphs CwV immediately following u, o, or w and allomorph CV in other environments: /ha ~ hwa/ 'only', in /'saa'mo'hwa/ 'only vultures', /'saa'naana'ha/ 'only trees'.

Single stops do contrast, however, with stops plus y and w in that both the single stops and the sequences occur initially, both C and the sequence Cy occur following pho-

ARABELA

nemes other than i and y, and both C and the sequence Cw occur following phonemes other than u, o, and w: /'kuwa-ko/ 'hole', /'kyuyaka/ 'hawk'; /'ru'pwiika/ 'sticky', /'mwenikya/ 'left hand', /'meni'kyunu/ 'squeezing'; /'ka'hi/ 'axe', /'kwa'hi/ 'my grandmother'; /'ma'kaa'kwa/ 'on the stick', /'nu'kuu'kwa/ 'on the bone', /'ka'hii'kwa/ 'on the axe'.

(8) Syllable pattern C is made up of t, n, r, š, or k and occurs only preceding a syllable that begins with homorganic consonant: /'mwerat'tyenu/ 'cause to be seen', /'mante/ 'moth', /'sa'par'tu/ 'shoulder blade', /'mokoš'tyaka/ 'palm fruit', /'karak'kohwa/ 'type of owl'.

(9) Syllable pattern V occurs only following CV or CcV. V is always the same vowel as that in the preceding syllable: /'ru'paa/ 'mouth', /'siinu/ 'to raise a creature', /'noonu/ 'to hurt', /'mweeru/ 'younger sister'.

(10) Syllable pattern Vc occurs only as ay: /'sako-raay'te/ 'bad', /'saaynyu/ 'to bite'.

The borders between these syllables occur as follows (low dot indicates syllable division). When a semiconsonant precedes a consonant, syllable division occurs between them: /'kay.nyu/ 'to choke'. Two semiconsonants in sequence are preceded by syllable division: /'na.ri.wye/ 'its bottom'. Except for these instances, syllable division occurs between V and the following phoneme: /'na.nu/ 'wild', /'ka.ya/ 'man', /'ru.'pa.a/ 'mouth'. When two consonants occur in sequence, the first is a complete syllable: /'ma.n.te/ 'moth'.

6. Stress group. The principal contrastive features of the stress group⁴ are an initial stressed syllable and an op-

⁴Stress is not considered a separate phoneme but rather as a feature of the stress group.

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

tional mild decrescendo. In present data stress groups consist of from one to five syllables. The stressed syllable has stronger intensity and also a slight length of the vowel, plus optional length of the consonant of the following syllable. (See 2 and 4.)

The optional mild decrescendo within the stress group starts with the initial stress and then fades in intensity and sometimes in pitch. This decrescendo may optionally go to voicelessness, even when the stress group contains only one or two syllables. This happens, for example, on the stress group 'kera in /'kera'pašika 'te/ 'is he fat?', and on the stress group 'kya in /'kya'hayniya/ 'you'. When a one-syllable stress group precedes another stress group, the first syllable of the following stress group usually has a sharply different pitch--up or down--from that of the preceding one. When the simple syllables V and C occur within the stress group they take as much time as a more complex syllable, and play the same role in the rhythm dynamics. Stress groups frequently, but not always, coincide with grammatical words.

Syllable types CV, CcV, and cV occur both stressed and unstressed. Syllable type V is the second of a cluster of like vowels and it is never stressed. (There are never more than two like vowels in a vowel sequence.)

Syllable types CVc, CcVc, and cVc occur only stressed whereas syllable types ccV, C, and Vc occur only unstressed in my data.

7. Phonological word. The phonological word has a stronger decrescendo of speed and intensity, and sometimes of pitch than does the stress group. In slow speech the phonological word usually corresponds with a grammatical word so that their decrescendos overlap, but in fast speech several stress groups with their included, mild decrescendos

ARABELA

combine as wavelets within the larger phonological word with its overriding decrescendo wave.

The first syllable of each word which occurs phonological-phrase initial is stressed, and the last syllable of each word which occurs phonological-phrase final (in most phonological phrase types), is stressed. The form of the word that occurs phonological-phrase medial (symbolized here by .. following the word) is considered basic, and has been chosen for the illustrations of the possible stress patterns.

In describing the stress patterns for Arabela words, S. will be used to represent a syllable. One-syllable words in my data are all stressed. Two-syllable words have the following stress patterns: (1) 'S.S /'kama../ 'uncle' (2) 'S.'S /'ka'hi../ 'axe' (3) S.'S /..ri'tya../ 'quick' (4) S.S (only one word noted with this pattern) /..ryunu../ 'boil'. Three-syllable words have the following patterns: (1) 'S.S.'S /'kiya'tu../ 'my daughter' (2) 'S.'S.S /'ki'yatu../ 'a type of fish' (3) 'S.S.S /'tariki../ 'morning' (4) S.'S.S /..ru'paynyu../ 'to stick'. Four-syllable words have the following patterns: (1) 'S.S.'S.S /'koko'taka../ 'a small fruit' (2) 'S.'S.S.S /'pa'neyaka../ 'perspiration' (3) 'S.-'S.S.'S /'na'pana'ha../ 'large partridge' (4) 'S.S.'S.'S /'kowa'tu'ko../ 'voice box'. Five-syllable words have these patterns: (1) 'S.S.S.'S.S. /'mokoši'tyaka../ 'palm fruit' (2) 'S.S.'S.S.S /'kera'pašika../ 'fat' (3) 'S.'S.S.'S.S /'sa'poho'sano../ 'one lied to' (4) 'S.S.'S.S.'S /'saka-'mana'ha../ 'a palm tree'. Six-syllable words have similar patterns to those in five-syllable words, with slight changes depending on whether the additional syllable is stressed or unstressed: /'tukwa'kanu'hwaru../ 'a distant one'.

8. Phonological phrase. The phonological phrase is the highest level of the phonological hierarchy to be handled in

STUDIES IN PERUVIAN INDIAN LANGUAGES: I

this paper. In some respects it is the simplest unit to identify. It is characterized by an initial stress and in most types of phonological phrases by a final stress and glottal stop. The end of a phonological phrase is usually marked by pause. A decrescendo (see Pike, 1957) occurs in the general intensity of each phonological phrase (except for the strong negative emotion type) resulting in the allophones of k described in 2. The single-consonant syllable, C, occurs only phonological-phrase medial; syllable types V and Vc never occur phonological-phrase initial.

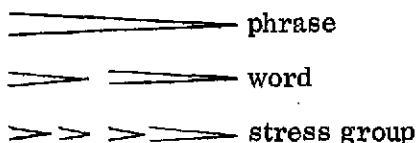
Seven phonological-phrase types have been observed.

(1) Narration: usually with small tone gaps and either level or slightly rising intonation over the whole phrase but with a definite final rise; medium decrescendo and final glottal stop unless the phrase weakens to voicelessness: ['ma'riya'e'ta-ka'naa na'nexi'nyu?] /ma'riya'ta ka'naa na-'neki'nyu/ 'we saw them together'.

(2) Finality: similar to narration in tone gaps and intonation except that the intonation falls at the end; medium decrescendo; may be the end of a quote, a thought, or a paragraph; (a story ending--suggesting a phonological paragraph or narration--has a stronger decrescendo and gradual pitch drop over the total clause): ['kiri'yayti-saamege-na'nuwahi 'ni'nyu?] /'kere'yayte 'saameka 'na'nuwahi 'ni'nyu/ 'lots of cool weather came later'.

(3) Hesitation or uncertainty: strong decrescendo, usually fading to voicelessness which eliminates final glottal stop; general falling pitch; laryngealization of some of the vowels:

ARABELA



[²²'taa[?]'ti[?] 'na[?]'s[?]uxin[?]U] /'taa'te 'na'sekinu/ 'how did he say (it)?'.

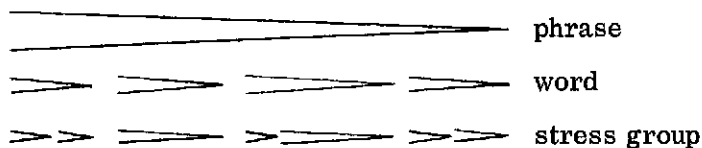
(4) Strong, negative emotion (anger, disgust, threatening): careful speech, usually slow; usually with large tone gaps; very strong, even stresses with very little or no decrescendo on the phonological phrase as a whole; final fortis glottal stop; pitch of stressed syllables on the same pitch level or stepping up: [[?]'pa[?]'šiniyut[?]'h[?]uri 'gom[?]'hi[?]] /'pa-šiniyute'huri 'koma'hi/ 'let's cool them off over there'.

(5) Anxiety or disdain: (The preceding phrase usually has rising intonation); at least one or more syllables in a high, falsetto voice; some overall decrescendo and final lenis glottal stop: [[?]'ma[?]'ha[?] 'mayn:ye[?] 'xi'nyu[?]] ['εε 'sɪ'se 'xi'nyu[?]] /'ma'ha 'mayn:ya 'ki'nyu/ /'aa 'se'sa 'ki'nyu/ 'he's not good; he's bad'.

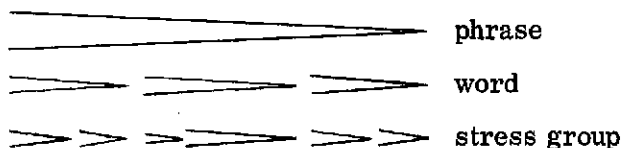
(6) Surprise: nearly all high falsetto voice; some decrescendo and final lenis glottal stop: [falsetto 'k[?]'saa[?]'ti 'heeg[?]'ni[?]] /'ka'saa'te 'heeke'ni/ 'what is that (heeke)?'.

(7) Unification: a double phrase characterized by a unifying intonation. The first phrase has rising intonation and the second is quite low and nearly level. Both phrases have some decrescendo. There may be slight pause or glottal stop but no great break between the phrases. This unification type indicates a special meaning connection or relationship of the phrases to each other:

STUDIES IN PERUVIAN INDIAN LANGUAGES: I



['ma'ha 'ma₂yn:y₂ε 'ki'ha₂yni₂y₂ε 'gi'nyu?]



['tama'hay 'ki'ha₂yni₂y₂ε 'xyæ'n₂u?]

/'ma'ha 'ma₂yn:ya 'ki'hayniya 'ki'nyu/ /'tama'hay 'ki'hayniya
'kyanu/ 'it's not good that you stay here; you go away alone'.