TONOGENESIS IN NORTHERN TEPEHUAN

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ABSTRACT

Northern Tepehuan, a Uto-Aztecan language of Mexico, displays contrastive pitch on clusters of two vowels. These pitch contrasts have been described as phonemic tone[1]. Northern Tepehuan, Southern Tepehuan, Upper Piman and Lower Piman form the Tepiman Branch of Uto-Aztecan. The loss of Proto-Tepiman *h and *h has resulted in vowel clusters in Northern Tepehuan, thus providing some of the environments for the contrasting tones. The other three Tepiman languages display stress in corresponding environments. This incipient tone system presents an ideal situation in which to examine once more the ways in which tone develops in a language.

SYLLABLE STRUCTURE

The syllable in NT must always have a V or a VV as its nucleus. It may have a C onset and/or coda. It may be short, i.e., contain a single vowel; or long, i.e., contain a vowel cluster. The VV of the long syllable may be geminate or divide. This unit displays the contrasting pitch patterns of NT. All four possible tone sequences of high and low tone on a sequence of two vowels occur in NT. I accept this fact as a part of the evidence for tone in NT. The following examples show the structure of the syllable as described:

V á.ki ‘stream’
VV áá.ki ‘popcorn’
VC á.ʃ.tʃ.ii ‘throw it out’
CV bá.vi ‘beans’
CVC tá.ʃ.ka.li ‘tortilla’
CVV dá.ʃ.ka ‘nose’

NT words may consist of as many as eight syllables (or more if one includes clitics) as seen in: ga.ma.máa.ti.tu.li.tô.a.dai ‘he was teaching someone’.

While long syllables play an important role in NT phonology, not every word is required to have a long syllable. In one limited environment long consonants appear to “take the place of” long vowels. Following a short high-toned initial syllable, a consonant is lengthened as in: /bávi/ [bá-bi] or [bá-bi] ‘beans’. But bávi ‘his beans’ has no long syllable.

INTRODUCTION

In his article “Tonogenesis in Southeast Asia”, James A. Matisoff (1973) says: “...it appears that to become truly tonal a language must have a basic monosyllabic structure. Polysyllabic languages may develop ‘pitch accent systems...’” Matisoff refers to the latter as “marginally or incipiently tonal”[2].

It is precisely this “incipient” or “marginal” nature of the contrastive pitch phenomena in Northern Tepehuan which provides the motivation for this paper. The precise definition of a tone languages has yet to be agreed upon. This paper will reflect the view that tone is present where contrastive pitch is found on the lexical level.

Northern Tepehuan is spoken by approximately eight thousand people living in the mountains of Chihuahua in Northern Mexico. Northern Tepehuan (NT), Southern Tepehuan (ST), Papago (UP), and Pima (LP) form the TEPIMAN sub-group of the Sonoran Branch of Uto-Aztecan. This paper reflects the field work done by the author in these languages.

Because NT has a relatively simple tone system (only two tones), and because the tone contrasts are restricted to vowel clusters, tone has a very low functional load. Since the other three Tepiman languages do not have tone, it seems very likely that tone is just developing in Northern Tepehuan and that it is therefore an ideal situation in which to inquire about how tone originates in a language.

Northern Tepehuan has two contrastive pitches (tones), high (') and low (' in phonetic representations and unmarked in phonemic representations). There is at most one high-toned syllable in a stem. Any of the following qualifies as a high-toned syllable: V, VV, VV, or VV. Pitch contrasts occur only on VV (sequences of two vowels). A VV is the nucleus of a long syllable. There is at most one long syllable in a stem, which is considered to be the nucleus of the stem. The long syllable is not always the high-toned syllable. Stems may be composed of from one to three syllables. For example:

Se 31.3.1

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The claim that stems have no more than one long syllable in NT is contradicted by masulis since the final 5 is not in a part of the stem. It is the "present" or the better "asemical" verbal suffix. The final -a is the "absolutive" suffix. The evidence for tone is found on the following (CVCV) sequences:

The purpose of this list of examples is to present evidence for the contrasting development of NT phonology as complex as NT. As already shown, to say NT, especially to say NT or LP, non-initial NT has spread in all four languages to 5/8. The following examples show some of the correspondences displaying their oral changes (see Bancom 1957b) for a complete set of correspondences.

The high-tone high sequence occurs on a (CVCV) sequence list three sources in NT.

The loss of "b", either initial or medial) "*CVCV... > NT yaf" or "CVCV... > CVV". If *b is represented as a glottal fricative in the loss of a syllable resulting in a sequence of high tone this would be worthy of note. However, only two of the eight languages actually have the glottal fricative for the real of NT which is also the other two have a voiceless fricative reflex.

Some of the most interesting sound changes in the development of the Tapanian languages from Proto-Tapanian (PT) involve the loss of "a" and "e". This is a glottal fricative in ST and LP, and a voiceless fricative in NT and LP. These changes are rarely reflected in the development of ST, LP, since they are in some instances recalled in the vowel clusters where the tone contrasts occur. All 24 (PT) are lost in NT. Word initial *b has been retained in ST, UP, and LP. Non-initial PT *b is retained in LP and ST and 3/6 is in Ly and LT. *b in the onset of a syllable, not part of the syllable exstinct. The following examples show some of the correspondences displaying these sound changes:

Two forms do not follow this rule:

The high-low tone sequence.

The low-tone low sequence of tones on a CVV syllable in NT comes from PT CVCV when this sequence follows another syllable. If *C or *C is followed by another syllable, if *C or *C then NT is 6.

Compounded words may occur with two high-tone syllables accompanied by stress.

Note that in NT the contrast between *b" the killed one and *b" the slice" the former comes from a PT high/low form while the latter comes from a PT monosyllabic form.

The source of high-low tone sequence.

The low-low sequence of tones on a CVV syllable in NT comes from PT CVCV when this sequence follows another syllable. In these cases the follow in the same word only by 0 or 1.

An alternate approach.

This study is not an exhaustive one. That would require much more comparative work. Nevertheless, the primary thrust of the paper, namely, that the pitch contrast in NT have developed in part from the loss of PT *b and *b, is well established by the evidence presented. Now phonetic facts are interpreted in a phonetic analysis dependent only on the basic assumptions of the analysis. While this paper has analyzed the pitch contrast in ST and LP, the facts that NT tones occur in such a limited environment makes it desirable to entertain the possibility of an alternate solution. Nancy Hwu has done this in her paper on Tone in Northern Tapanian. Her analysis claims to account for all of the pitch phenomena in NT on the basis of a set of rules involving the shapes of stems, historical and comparative information, and the introduction of a rule involving "specific kind of "syllabic" feature. Since she was not working directly with native speakers of Northern Tapanian she did not have all of the information about the language in hand, thus her analysis does not handle all the forms. For example, marisad "his child" or "its branch" has two plural forms whose tones contrast, i.e., maarfadad ("children") vs. maaraadad ("its branches"). If we have understood Wow's rules correctly, they predict the form but not the latter. Some of the assertions Wow makes which reveal her underlying assumptions about the nature of phonological analysis and which seem to be essential to her thesis are at best debatable. The claim, at one point in her argument, that speakers of a language "remember" lost languages (historically lost, not synchronically) is not a concept accepted by all linguists.

If one even grants Wow's rules do handle the material she has access to and might well be expanded to cover all of the phonological facts, it remains that some prefer to stick to the observable phonemic phenomena and live with fewer generalisations; and also to treat historical and comparative facts as information to be considered after the synchronic picture has been developed.

Northern Tapanian phonology has moved away from a strictly "stressless" system in Proto-Tapanian to a "pitch accent system" synchronically. As long as one keeps the total word in focus and does not introduce morphology, specifically stem boundaries, into the phonological analysis, contrative pitch is phonemic. I prefer to call it "tone", but am willing to settle for the term "pitch accent" as a viable alternative.