Aspiration in Tolkapaya Yavapai

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In this paper I will examine the phonemic status of "aspiration" — the coalescence of sequences of consonants and h — in one idiolect of the Tolkapaya dialect of the Yuman language Yavapai, concluding that three separate phonological rules produce all surface "aspirated" consonants, and that these consonants should not be analyzed as contrastive segments in this dialect. The analytical picture becomes much less clear when data from other dialects are considered, however, which accounts for the differing analysis of Shaterian (1983).

Tolkapaya (also known in the literature as Western Yavapai; cf. Shaterian 1983, ch. 1) has five vowels (i, e, a, o, and u, plus length) and 22 underlying consonant segments:

(1)  p, t, ch [č], k, ky [k’y], kw [k’w], q, qw [q’w], ’ [ʔ]
v, th [θ], s, sh [ʃ] (rare), h, hw [h’w]
m, n, ny [n’y]
l, r
w, y

(1) presents the consonants of Tolkapaya in the practical orthography being developed by Munro and Fasthorse (in preparation). Our goal in developing this way of representing the language has been to produce a typeable system of alphabetic characters from which the pronunciation and other features of each lexical entry can be deduced. Note that underlying clusters of k plus y, k plus w, q plus w, t plus h, s plus h, and h plus w all occur in Tolkapaya, contrasting with the unit segments above: in our orthography, hyphens or other boundaries always separate elements of a cluster, while unit phonemes are always written together.

The language also has a number of phonetic segments which arise from coalescence of clusters of consonants and h. Shaterian (1983) generally treats the stops [pʰ], [tʰ], [cʰ], [kʰ], and [k’wʰ] as surface phonemes in Yavapai: "The aspirated stops and the affricate...are not present at the most abstract level of phonological or lexical representation. They are, however, present at the systematic phonetic and/or classical phonemic level" (p. 193), and are written this way in Shaterian's underlying forms and dictionary entries. The voiced consonants m, n, ny, l, r, y, v, and possibly w also have surface devoiced versions, which are not considered to be phonemic in any analysis of Yavapai that I know of. Following Shaterian, I will consider

1 I am grateful to Molly Star Fasthorse, my Tolkapaya teacher, friend, and collaborator, for helping me to learn about her language. My knowledge of Mojave comes primarily from the late Nellie Brown and the late Robert S. Martin.

2 Other sources for Yavapai, such as Kendall (1976) and Hardy (1979), do not present any consistent way to write these, and it is not clear they recognized them (despite the generous comments of Shaterian 1983).

3 The Tolkapaya hw [h’w] phoneme is subject to confusion with derived voiceless w, if such a sound exists. I am not yet sure what the facts are here.

4 Thus, devoicing "can now be viewed within the framework of aspiration in general" (Shaterian 1983: 214).
the devoiced sonorants and v as well as the stops to form a class of "aspirates". The question I will address here concerns the status of these phonetic segments in the grammar of Tolkapaya, particularly in terms of their best orthographic or lexical representation.

There are three separate "aspiration" rules in Tolkapaya, producing three separate types of consonant-h coalescence. The first of these, hC Devoicing, informally stated in (2), is responsible for the derivation of devoiced sonorants and v:

(2) Rule I: hC Devoicing
All immediately prestress and at least some poststress clusters of h plus voiced consonant are pronounced as devoiced units.

(3) presents some examples of the operation of this rule in Tolkapaya, with Mojave cognates for comparison where available.¹

(3) Tolkapaya Rule I (hC Devoicing) examples

<table>
<thead>
<tr>
<th>Tolkapaya</th>
<th>Mojave cognates</th>
</tr>
</thead>
<tbody>
<tr>
<td>'hma' quail'</td>
<td>'ahma (~ 'amha)</td>
</tr>
<tr>
<td>'hmaa' gourd</td>
<td>'ahmaa (~ 'amhaa)</td>
</tr>
<tr>
<td>'hnaa' gourd type</td>
<td>'ahnaly</td>
</tr>
<tr>
<td>hnu 'catch a disease'</td>
<td>ahnoo</td>
</tr>
<tr>
<td>khlo 'boat'</td>
<td>(kulho)</td>
</tr>
<tr>
<td>vhle 'old man'</td>
<td></td>
</tr>
<tr>
<td>hluv+i 'to have a hole'</td>
<td>(malahuym, thamaloym)</td>
</tr>
<tr>
<td>hrov+i 'to be hooked'</td>
<td>(Rôkvi)</td>
</tr>
<tr>
<td>t-hrov+i 'to make (bread) rise'</td>
<td>tahmoop</td>
</tr>
<tr>
<td>s-hyuk+i 'to dig up'</td>
<td>(svYuki)</td>
</tr>
</tbody>
</table>

Each word is given both in underlying form and with an idealized "phonetic" form (in square brackets), in which I generally continue to follow the orthography presented above, with the addition of capital letters to represent the devoiced sonorants (devoiced v, of course, is f). A survey of the underlying forms above shows that Tolkapaya words have relatively few underlying vowels — in the words in (3) there is only one, the stressed root vowel. (I follow Langdon’s concept (1970) of a Yuman stem formed by affixation of prefixes and suffixes to a stressed root syllable, which in Tolkapaya has the form CV(:)(C).) Surface forms of Tolkapaya words have "schwas" (represented here with v) inserted by rule: few initial clusters or internal clusters longer than CC are allowed.² Following Munro and Fasthorse (in preparation), I segment the "absolutive" +i increment added to consonant-final verb stems (cf. Hardy 1979). Stress always falls on the vowel before this augment.

Most of the Mojave words in (3) have hC sequences like those in Tolkapaya, but the parenthesized forms either show metathesis or are less closely related. Mojave has a rule similar

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¹ The Mojave words are from Munro, Brown, and Crawford (in preparation). Stress falls on the same (corresponding) vowel in both languages, but the status of prestress vowels in Mojave and Tolkapaya is quite different (for some discussion of the problems in Mojave, see Munro and Gordon 1990), and many vowels are written in Mojave which would be regarded as inserted in Tolkapaya.

² As noted above, when a Tolkapaya word contains a cluster of t+h, these sounds must be separated by a hyphen or some other boundary to avoid confusion with the unit digraph th [0].

³ I assume that Shaterian’s Generalized Syllabicity Rule (1983: 173ff) fully accounts for the derived surface forms of all the words I present.

Note that my phonetic forms do not reflect minor variation in the quality of short stressed vowels. The quality of inserted v's is environmentally determined, with both consonants and neighboring underlying vowels being relevant.
to hC Devoicing, optionally producing devoiced nasals and laterals in words like those above, but the Mojave rule does not affect v or glides.

Tolkapaya also has words in which sonorants or v occur near h without coalescence, as in (4):

(4) **Tolkapaya words without hC Devoicing**   **Mojave cognates**

Hamaa 'esticles' [hamá:]   hama
Hala 'moon' [hálá]   haly'a
Hanak+i 'to wear a necklace' [hanákí]   honakv
Hanyom+i 'to make a ritual run' [hanyómi]
Hamuk+i 'to be three' [hamúkí]   hamok

The failure of Devoicing in words like those in (4) requires that they be analyzed as having an underlying prestress vowel to block the application of the rule. While most applications of hC Devoicing occur in invariant stems, this rule is also responsible for lexical alternations such as those in (5):

(5a)   neh+i 'to kill' [néhí] / neh+v+i 'to be killed' [néfi]

(5b)   hmir+a 'chipmunk' [Mfrá] / milt+a 'squirrel' [mftá]

The second word in (5a) is a mediopassive verb containing the derivational suffix -v which illustrates the application of hC Devoicing in other than immediately prestress position, a mediopassive verb containing the derivational suffix -v. The relationship between the two nouns in (5b) — which include the absolutive +a suffix used on many consonant-final noun stems — is evidently quite archaic. They reflect a sound-symbolic r/l alternation, the suffixation of augmentative -t, and prefixation of an h- morpheme which I will discuss further in connection with (9) below.

The second aspiration rule, hC Aspiration, produces most Tolkapaya aspirated stops:

(6) **Rule II: hC Aspiration**

All immediately prestress clusters of h plus stop are pronounced as unit aspirated stops.

(7) shows some examples of the application of hC Aspiration, again with Mojave cognates. I represent aspirated stops here with capital letters (recall that ch and kw are unit segments):

(7) **Tolkapaya Rule II (hC Aspiration) examples**   **Mojave cognates**

Hchet+a 'wheat' ['vCHéta]
Hchuur+i 'to be winter' ['vCHúr:i]
Hkoo 'pinenuts' ['VKó]
Hkwa 'metal; knife' ['vKWá]
Hkwak+i 'to open (intr)' [KWákí]
Tkawk+i 'to open (tr)' [tkWákí]
Thpaa 'Papago' ['tVPá:
Hta 'reed' ['VTá]
Chhata+i 'to crawl' ['chVTá:tí]
Iihtaa+a 'backbone' [i:Ttá]
Kt-hkoo 'tripe' [ktKó:]   'ahchet
Hachoor
('akho)
Ahhoo
'Ahkwe 'knife'
Askk 'open just a little'
(Hachpa 'Pima')
'Ahta 'cane'
Chhataat 'crawl like a baby'
Ihtat

* My idealized transcriptions ignore the [h] which is added in isolation to vowel-initial words. See Munro and Fasthorse (in preparation). In isolation, 'his backbone' would be pronounced [hi:Ttá].
My data do not agree with the description of aspirated stops given by Shaterian (1983: 214), who claims that 'there are very few occurrences of aspirated stops in Yavapai. In each case they are preceded by /r/ and are of the shape /rC'h/V.../". While it is true that many of the Tolkapaya words in (7) are simple nouns or verbs containing the nominal formative - (e.g. 'wheat', 'pinenuts', 'metal', 'reed', and the verb 'be winter'), the others do not contain a glottal stop, and their prestress aspirated stops may be initial (e.g. in 'open (intr)' or 'grandchild') or may follow a prefix or prefixes, which may be segmentable (e.g. causative t- in 'open (tr)' or body-part ii- in 'backbone') or not (e.g. the synchronically unanalyzable t- of 'Papago', ch- of 'crawl', and k-t- of 'tripe'). (In most cases, Shaterian records these words much as I do, with aspirated stops in the positions I hear them, without noting any conflict with the generalization I have just quoted.) The distribution of Tolkapaya aspirated stops is thus similar to the distribution of prestress devoiced sonorants, which are also not required to follow a particular morpheme.

A rule similar to II operates in other Northern Pai languages, though not in Mojave or, as far as I am aware, other Yuman languages.

In contrast with (7), (8) shows some words in which prestress stops appear near initial h without being aspirated.

(8)  
Tolkapaya words without hC Aspiration  Mojave cognates
hachaa 'the Milky Way' [hachà:] hachaa 'Pleiades'
hachil 'nit (in the hair)' [hachil] hachiil
hapir+xa 'only' [hapíra] huper 'just'
hate 'prickly pear' [hate]  

As with the corresponding words in (4), such forms must be analyzed as having an underlying prestress vowel to block the application of hC Aspiration.

As with Rule I, most applications of hC Aspiration are in invariant forms, but there are a few lexical alternations, as in (9):

(9)  
hkoo 'grandchild' [Kó:] / nkoo 'grandfather' [nVkó:]  
hchany+ra 'little girl' (baby talk) [CHánYou] / chany 'little girl'

Comparison of the members of the word pairs in (9) suggests that Tolkapaya has a previously

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* Shaterian's recordings of words with aspirated stops for the most part look like my square-bracketed phonetic forms, written with phonetic symbols, but with the V's omitted. These recordings are generally presented within phonemic slashes. Some examples are in (23).

One significant difference is the word for 'grandchild', which Shaterian writes as ?k'hó (e.g. p. 224). My consultant Ms. Fasthorse assures me that the form with prefixed glottal stop must be interpreted as having a first-person possessor; the stem is unprefixed.

Another difference between Shaterian's transcriptions and mine which I will not pursue here concerns vowel length — Shaterian records three degrees of vowel length (as discussed by Kimberly Thomas at this conference), while I record two.

* Shaterian writes: "[The other Northern Pai languages] Havasupai and Hualapai differ from all dialects of Yavapai in that postaspirated stops can appear in word-initial position, which is not the case for Yavapai, where an initial glottal stop is always required to trigger [aspiration]" (1983: 215).
unrecognized diminutive prefix h-.. The same prefix is present in the first word in (5b) above.11
The second source for Tolkapaya prestress aspirated stops is a rule of Ch Aspiration:

(10) **Rule III: Ch Aspiration**
Within stems, immediately prestress but not word-initial clusters of stop plus h are pronounced as unit aspirated stops.

Here are some examples, again with Mojave cognates:

(11) **Tolkapaya Rule III (Ch Aspiration) examples**  **Mojave cognates**
'mkhav+i 'Mojave' ['VmKáva]
skhav+i 'to fasten, button' [svKávi]
tkhav+i 'to shuffle' [tvKávi]

Ch Aspiration crucially does not operate when the prestress Ch sequence is word-initial, so words like those in (12) are pronounced with a sequence of stop plus h separated by a regularly inserted schwa:

(12) **Tolkapaya words without Ch Aspiration**  **Mojave cognates**
khav+i 'to catch up with' [kvhávi]
chhuy+i 'to whistle' [chvhuáyi]
t-hot+i 'to hide (tr.)' [tvhóti]

The restriction prohibiting coalescence and aspiration of initial Ch sequences is sensitive to the position of the verb stem boundary. When inflectional prefixes are added to stems like those in (12), coalescence and aspiration of the underlying stem-initial Ch sequence is optional:

(13)  m-khav+i 'you catch up with him!' [mvkvhávi] /mvKávi/

One of the difficulties with the Tolkapaya data cited is that as far as I can determine all examples of the rule's operation (the list in (11) appears to be exhaustive) appear to involve a single verb stem (the 'catch up with' stem shown in (12-13), with various prefixes). Shaterian does not present this process as a rule separate from hC Aspiration, though he does record the words in (11) with aspirated stops. This rule certainly operates optionally in Mojave as well.

As the preceding discussion suggests, the grammatical status of the three aspiration rules is different. Both hC and Ch Aspiration produce aspirated stops, but they differ in a number of other ways.

Historical/comparative evidence supports an underlying difference in the inputs to these rules, as the Mojave cognates show.

Rule II, hC Aspiration, has a close parallel in hC Devoicing, but Ch Aspiration is not similarly related to any devoicing process. Words like those in (14), for instance, show non-initial prestress sequences of sonorants or v plus h, but they show no devoicing comparable to that produced by hC Devoicing:

(14)  shoo 'fingernail' [svlhó:]  kvhii1+i 'scrub on a washboard' [kvvhí:li]

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11 The standard Yuman diminutive prefix is n- (or occasionally ny-), which is syntactically as well as derivationally productive in most languages and is used on verbs as well as nouns (Munro 1977, 1988), as exemplified later in this paper. I know of no report of other h- diminutives in Yuman. However, one place the n- diminutive is used is on most older-than-ego kinship terms (as explained in Munro 1977), and the standard *n- of at least one reconstructable kinship term, 'father's sister', is replaced by h- in Kiliwa (Wares 1968: #157).
The rules of hC Devoicing and hC Aspiration, though they produce different outputs (devoiced consonants or aspirated stops), are very similar. A number of pieces of evidence show that these two rules apply relatively early in a phonological derivation. For example, they must precede a rule which I will state informally in (15):¹¹

(15) **Rule IV: Metathesis**
Within a stem, a non-stem-initial pretest sequence of h plus a is metathesized.

Metathesis is exemplified in (16a) and (17) below:

(16a)  tvhakee 'to change (tr) [tvhakk:]  
(16b)  vuuk*hakaay+i 'to be different' [vu:khaká::yi]

(16) illustrates the structural restriction on the rule's operation. The formative hakee/hakaay is preceded by causative t- in the stem in (16a), so Metathesis applies. In (16b), the formative is preceded by the clitic vuuk (* represents the stem or clitic boundary), but is stem-initial, so Metathesis fails. (17) presents some more examples, with Mojave cognates:

(17) **Tolkapaya Rule IV (Metathesis) examples**

<table>
<thead>
<tr>
<th>Tolkapaya verb</th>
<th>Mojave cognates</th>
</tr>
</thead>
<tbody>
<tr>
<td>s-hakyev+i 'to cross' [sahkyévi]</td>
<td>tahakyeev</td>
</tr>
<tr>
<td>nyhanyo 'shoe' [nyahnyo]</td>
<td>nyahmanyow/nyamhanyow</td>
</tr>
</tbody>
</table>

The metathesized surface forms in (16a) and (17) contain pretest hC clusters which should be subject to coalescence by the aspiration rules I and II. Since these rules do not apply in these words, Metathesis must follow hC Devoicing and hC Aspiration. In contrast, Ch Aspiration is a relatively low-level rule — as the alternation in (13) suggests, perhaps it should be seen simply as resulting from slight differences in schwa insertion.

A second area in which hC Devoicing and hC Aspiration are grouped together, opposed to the rule of Ch Aspiration, is in their interaction with the pragmatically controlled morphological process of Diminutive Stem Formation.

Diminutive stems can be formed from (almost) any Tolkapaya verb stem used with an appropriate diminutive trigger subject in an appropriate discourse context. (As I discuss in Munro 1977 and Munro 1988, the best diminutive trigger is a small child, but a pitiful elderly person or pet may also qualify.) In most cases, the diminutive prefix n is added to the basic stem of a verb (or, more rarely, a noun)¹² immediately before the word's stressed CV(C) root. (18) provides examples of basic and diminutive stems varying in structural complexity. In each case, the n appears in the diminutive stem immediately preceding the consonant before the stressed vowel (recall that digraphs like hw represent unit segments):

(18) **Basic stem**

<table>
<thead>
<tr>
<th>Tolkapaya verb</th>
<th>Mojave cognates</th>
</tr>
</thead>
<tbody>
<tr>
<td>hev+i 'to have a tail' [héví]</td>
<td>nhev+i [nheví]</td>
</tr>
<tr>
<td>maa 'to eat' [má:]</td>
<td>nmaa [nma:]</td>
</tr>
<tr>
<td>'hwat+i 'to be red' ['vhwáti]</td>
<td>'nhwat+i ['nhwáti]</td>
</tr>
<tr>
<td>smlooh+i 'to snore' [svmloó:hí]</td>
<td>smlóoh+i [sVmlóohí]</td>
</tr>
<tr>
<td>sklpyuy+i 'to hug' [svklpyúyí]</td>
<td>sklpuy+i [svklpyúyí]</td>
</tr>
</tbody>
</table>

¹¹ Shaterian (1983: 223) notes that almost all instances of metathesis in Yavapai involve h, but he suggests that the examples he cites involve lexical or sporadic metathesis. I do not know if a rule like (15) operates in other dialects of Yavapai.

¹² I believe that all nouns which appear to undergo synchronic diminutive stem formation should be regarded as deverbal. However, n prefixes are a fixed part of the prefix structure of many lexical nouns with diminutive reference.
Tolkapaya hC sequences coalesced by hC Devoicing and hC Aspiration are treated as units in Diminutive Stem Formation — in each case in (19), diminutive n appears before the pretestress coalesced hC:

(19) \textbf{Basic stem} \\
\begin{itemize}
  \item t-hvov+i 'to make (bread) rise' [tvfövi]
  \item chhlu 'to burp' [chvlù]
  \item hkawak+i 'to open' [Kwáki]
  \item hkoо 'to have a) grandchild' [Kó:]
\end{itemize}

\textbf{Diminutive stem} \\
\begin{itemize}
  \item nhvov+i [tvnfövi]
  \item chhlu [chvnLù]
  \item nhkwak+i [nvKwáki]
  \item nhkoo [nvKó:]
\end{itemize}

However, Diminutive Stem Formation treats Ch’s coalesced by Ch Aspiration surprisingly differently:

(20) \textbf{Basic stem} \\
\begin{itemize}
  \item skhav+i 'to button' [svKávi]
  \item tkhav+i 'to shuffle' [ivKávi]
\end{itemize}

\textbf{Diminutive stem} \\
\begin{itemize}
  \item snkav+i [svnkávi] (a)
  \item / sknhav+i [svvnhávi] (b)
  \item nknkav+i [tvnkávi] (a)
\end{itemize}

The diminutive stem of a verb like skhav+i 'button' which is pronounced with an aspirated stop derived by Ch Aspiration is not *[svnkávi], as would be expected on the model of (19). As (20) shows, Diminutive Stem Formation results either in a stem with n inserted before the pretestress h of the basic stem, disrupting the C-h aspiration sequence, as in (20b), or a stem in which the h of the basic stem has been deleted, and the diminutive n appears before the preceding consonant, as in (20a). It is certainly not clear why forms like (20a) are produced. 14

Evidence from Diminutive Stem Formation bears on some questions concerning the phonemic status of certain Tolkapaya sounds we have not yet considered here. For instance, such data may be used to argue that Tolkapaya does not have a palatal I phoneme, unlike most Yuman languages, and despite the suggestion of Shaterian (1983: 40-41). Consider the diminutive stem of 'bad' (21), one of several words whose basic stem contains phonetic [ly]:

(21) \textbf{Basic stem} \\
\begin{itemize}
  \item qlyep+i 'to be bad' [qvlyépi]
\end{itemize}

\textbf{Diminutive stem} \\
\begin{itemize}
  \item qln-yep+i [qvlVnyépi]
\end{itemize}

Since Diminutive Stem Formation splits the l and y of the basic stem, the root of 'bad' must be -yep-, and the preceding -l- must be analyzed as part of the word's prefix structure.

While I know of no case where a Tolkapaya phoneme can be split by Diminutive Stem Formation, it is not true that whatever intervenes between the -n- of a diminutive stem and the following stressed vowel must be a single phonemic unit. For instance, immediately prestress sm and sw have no inserted schwa, and are treated similarly to the hC's above for diminutive stem formation:

(22) \textbf{Basic stem} \\
\begin{itemize}
  \item smaa 'to sleep' [smá:]
  \item swaar+i 'to sing' [sáwá:ri]
\end{itemize}

\textbf{Diminutive stem} \\
\begin{itemize}
  \item nsmaa [nsvmá:]
  \item nsbaar+i [nsvará:ri]
\end{itemize}

No analyst would consider the prestress sm and sw of the verbs in (22) to be unit segments, but their treatment in Diminutive Stem Formation is entirely parallel to that of the hC aspirate segments shown in (19). Thus, Diminutive Stem Formation cannot be used to argue

14 As the first example in (18) shows, n does not normally replace root-initial h. Ms. Fasthorse greatly prefers the (a) diminutive stems to the (b) type, and does not accept a (b) stem for 'shuffle'.

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that Tolkapaya aspirated and devoiced consonants should be treated as underlying units. But since Diminutive Stem Formation treats the output of Ch Aspiration differently from the outputs of hC Aspiration and hC Devoicing, it is important that the different underlying forms of these words be distinguished in the lexicon. If no such distinction were made, and all words with phonetic aspirated stops appeared with identical aspirated stops in the lexicon, language learners would have no cue to tell them that different groups of aspirated stops behave differently with regard to Diminutive Stem Formation. Further, inflected forms of words like 'catch up with' (13) would sometimes have to be written differently from their basic stems (12).

The phonological similarities between the these aspirated stops derived by hC Aspiration and the voiceless segments derived by hC devoicing support analyzing them similarly as phonologically derived. Here I depart from Shaterian's analysis. For Shaterian, hC Aspiration is a historical rule creating new synchronic phonemes (written with a superscript h in Shaterian's underlying forms), while hC Devoicing is presented more like an automatic phonetic alternation (Shaterian's underlying forms for hC Devoicing examples look like mine). The difference between our analyses may be attributed, in part, to our differing data bases and goals. In a grammar of the speech of a single speaker like Ms. Fasthorse, it is possible to propose a consistent analysis of all the "aspirated" segments. In preparing a comprehensive description of the phonology of all dialects of Yavapai, however, Shaterian was forced to deal with sometimes conflicting dialectal evidence. Consider alternations like those presented in (23) below (Shaterian 1983: 224), for instance. The first form in each pair is from Northeastern Yavapai, the second from an earlier speaker of Western Yavapai (Tolkapaya).

(23a) /βlhe:/ /phle/'old man' (cf. (3))
(23b) /phtə:/ /tʰə/ 'reed, cane' (cf. (7))
(23c) /θko:/ /tkʰo/ 'tripe' (cf. (7))
(23d) /pə:kʰaːya:/ /pə:kʰaːya/ 'stranger' (cf. (16))

Dialect alternations like these certainly support the claimed relationship between aspirated stops and hC sequences. But (23b-d) show that hC Aspiration need not apply in Northeastern Yavapai, and thus cannot be given as a regular synchronic phonological rule for the whole language. But in Ms. Fasthorse's speech we find no such synchronic alternations: a given underlying form is obligatorily subject to the coalescence rules, and thus produces a predictable derived surface form. A grammar of the whole language which includes all the forms in (23), on the other hand, needs to recognize a special status for surface contrasts which can be treated as derived in the speech of a single consistent speaker like Ms. Fasthorse.

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15The Western Yavapai forms cited are from Warren Gazzam — Ms. Fasthorse uses v rather than p in 'old man', as (3) shows. Note that the second variant of (23a) is pronounced [pLÉ], with hC Devoicing, the effects of which Shaterian does not usually mark. (23d) contains the 'change/different' formative seen in (16), apparently without the prestress a used in Ms. Fasthorse's speech.
References


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PREFACE

The 1990 meeting was the twentieth anniversary of the First Hakan conference, which met at the University of California, San Diego. From time to time, the conference has met with other groups such as the Penutian conference and the Uto-Aztecans conference. It now regularly meets with the Penutian conference.

The conference is again indebted to Margaret Langdon and the Department of Linguistics at the University of California, San Diego, for hosting the conference. Our thanks are also due to the various graduate students who took care of the numerous details such as supplying the endless coffee.

The papers in this volume appear in the same order as they did on the program at the conference. Unfortunately, a few of the presenters were not able to send in a paper for publication. All of the papers in the volume except the last one were presented at the 1990 meeting.

In 1983, 1984, and 1985, very few of the presenters sent in their papers for publication. In 1986, a few papers from each of these years were assembled into a single volume. Werner Winter sent his 1983 paper in so early that the editor lost it in the files, and Winter's paper was omitted from the 1986 volume. It is now egg-on-the-face time for the editor. Winter's paper is included in this volume as the last paper. Mea culpa.

Arrangements have been made with Coyote Press, P.O.B. 3377, Salinas, CA 93912, 408-422-4912, to reprint the various Hakan and Hakan-Penutian conference volumes. Dr. Gary S. Breaschini of Coyote Press has told me that he will try to keep all the volumes in print. I have just sent him part of the original manuscripts and will be sending him the rest of the manuscripts very shortly. Only a very few of the original publications are still available. Please see the list at the end of the volume for details on the few remaining original volumes. I do not know how long it will be until Coyote Press will begin issuing reprints of the backissues.

James E. Redden

Carbondale, December 1990

Historical Note: The proceedings of the First Hakan conference were edited by Margaret Langdon and published by Mouton. I have edited all the other volumes of proceedings except those of 1988 and 1989, when I was in Africa. The 1988 and 1989 volumes of proceedings were edited by Scott Delancey in the series published by the Department of Linguistics at the University of Oregon. Please do not request these two volumes from me. Please address orders for the 1988 and 1989 volumes to: Department of Linguistics, University of Oregon, Eugene, OR 97403. I hope that Scott will be willing to publish the Hakan-Penutian volumes regularly, when I retire in a few years.

JER
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