

## 1. Allomorphy in the Hiaki oblique relativizer -'/-V:

a) Before a vowel-initial postposition: -?

[va'a-ta kom sika'-u] =ne wee-vae  
water-GEN down went-O.REL-to =1SG.NOM go-PROSP  
"I'm going to where the water went down."

b) Before a consonant-initial postposition (allomorph of -u):

...sika'-a-wi  
...went-O.REL-to

c) Before another consonant-initial postposition

...sika'-a-po  
...went-O.REL-at

Any verb-final vowel can be copied:  
yeewe'epo 'where (they) play' > yeewe 'play'  
bwatu'upo 'where (it) can be eaten' > bwa'atu 'be eaten'

First pass:

...V<sub>1</sub>? → V<sub>1</sub>?V<sub>1</sub> / \_\_\_ C  
→ V<sub>1</sub>? / \_\_\_ V

If the postposition begins in a consonant, an 'echo' vowel appears, a copy of the final vowel of the verb

## 2. Copy vowel not a phonotactic repair of a [?C] cluster

Prediction: If the 'echo vowel' is a V segment inserted to break up a [?C] consonant cluster, allowing the ? to surface as the onset of a ?V syllable, echo-vowel sequences should be bisyllabic

Fact: V<sub>1</sub>?V<sub>1</sub> sequences followed by consonants are counted as **one syllable**:

kaate-ka'-a-po	kaa.te.ka'a.po	4, not 5, syllables	*kaa.te.ka.'a.po
sit.sg-PFV-O.REL-EV-at			
yee=mahta-wa'-a-po	yee.mah.ta.wa'a.po	5, not 6, syllables	*yee.mah.ta.wa.'a.po
people-teach-PSV-O.REL-EV-at			
paro'os-im	pa.ro'o.sim	3, not 4, syllables	*pa.ro.'o.sim
hare-PL			
saka'a-vae	sa.ka'a.vae	3, not 4, syllables	*sa.ka.'a.vae

**Conclusion: 'Echo vowels' not motivated by the need to allow an underlying glottal stop consonant to be the onset of a syllable; they're not 'vowel insertion'.**

**A Hiaki 'echo vowel' is a vowel with a floating [+glottal] feature attached to it.**

## 3. Some surface glottals are onset consonants

Prediction: If glottals are never consonants, any V?V sequence will count as monosyllabic

Fact: Word-final ?V# sequences are syllabic, with onset glottal stop

ye.'e 'dance'	o.'ou 'man'	si.ka.'u 'to where (it) went'
voo.'o 'road'	chuu.'u 'dog'	wi.ko.'i 'rifle, armament'
bwe.'u 'big'	wo.'i 'coyote'	

## 4. Hypothesis: Floating [+glottal] element surfaces as

- **onset when possible**
- **Else glottalized preceding vowel ('echo vowel')** (Relevant cases? [+nasal] in French Dell 1985; [+rising tone] in Chinese (Pulleyblank 1962, Mei 1970, Sagart 1998), [+glottal] in Oto-Manguean (Gerfen 1999), [+glottal] in Mayo (Hagberg 2000))
- **Plus post-glottal vowel is strengthened word-finally** (or possibly minimal foot requirements trigger strengthening as in Ixtayutla Mixtec, (Penner 2019))

## 5. More arguments against simple consonant [?]

1. Epenthetic [i] is not used to repair consonant cluster, as elsewhere in Hiaki:

mochik 'turtle' + -m 'pl' → mochikim  
yeps+ -CV... → yevihCV (plus lenition processes)  
sika'+CV → sika'awi, not \*sika'iwi

2. Behavior of active voice suffix -e with Ci'i- stems.

hamti- 'break' + -e 'Voice.act' = hamte  
putti- 'shoot' + -e 'Voice.act' = putte  
yi'i- 'dance' + -e 'Voice.act' = ye'e not \*yi'e

If glottal was segmental, predicted form would be yi'e (N.B.: [i?e] sequence legit in other multimorphemic contexts, e.g. yi'i-'e'a, 'feel like dancing')

3. Mayo intervocalic r drop in Hiaki cognates

Mayo Yori ~ Hiaki Yoi 'Mexican'  
Mayo wiko'ori ~ Hiaki wiko'i

Predicted if glottal is vocalic feature in Mayo wiko'ori, since then [r] is intervocalic.