Reconstructing Achumawi and Atsugewi: Proto-Palaihnihan revisited

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0 Overview

[1] Achumawi and Atsugewi are two closely related northern California languages of the Hokan stock. (Map courtesy of California Indian Library Collections.)

[2] The most extensive work on the reconstruction of Proto-Palaihnihan is Olmsted (1964). This work offered an excellent collection of cognate sets given the data available at the time.

However, as pointed out by Bright (1965:177), there were problems with Olmsted's methods of phonological reconstruction.

[3] Since the time of publication of Olmsted (1964), new data has become available which suggests it is time for a reanalysis of the original reconstructions. (The new data include Len Talmy's Atsugewi field notes and data contained in Nevin (1998))

[4] Furthermore, the accession of George Grekoff's Chimariko notes to the archives of the Survey of California and Other Indian Languages makes this a good time to reassess the status of the Hokan stock generally. A clearly necessary step towards this is the development of a proper reconstruction of Proto-Palaihnihan to bring it to the level of reconstruction which we have for Proto-Pomo (McLendon (1973)) and Proto-Yuman (Wares (1968), Langdon (1970, 1976)).

[5] All forms given in the paper are normalized from Olmsted (1964) unless followed by "(LT)" for Atsugewi forms taken from Len Talmy's field notes.

1 The phonological systems of Achumawi and Atsugewi

1.1 General notes

[6] Olmsted (1964) does not report a series of glottalized consonants for either Achumawi or Atsugewi. However, Nevin (1998:52) reports a full series for Achumawi, and Len Talmy (personal communication) reports a full series for Atsugewi.

[7] Olmsted (1964) places a *ə* in the phonemic inventory of both Achumawi and Atsugewi. Nevin (1998:58) does not propose a phonemic *ə* for Achumawi, only an allophonic one. Len Talmy (personal communication) does not propose *ə* as part of the phonemic inventory of Atsugewi.

1.2 Atsugewi phonology (Len Talmy, personal communication)

[8] Atsugewi consonant inventory

p	t	c	k	q	
p^h	t^h	c^h	k^h	q^h	
p’	t’	c’	k’	q’	ʔ
	s				h, $\hat{h}$
m	n				
m’	n’				
	l r				
	l’ r’				
w	y				
w’	y’				

[9] Atsugewi vowel inventory

i	u
(e)	(o)
a	

length :

[10] Other relevant phonological features

[a] Plain and aspirated stops are always aspirated syllable-finally except q^h which is realized as *x*.

[b] The distinction between *h* and $\hat{h}$ is that *h* lowers a high vowel while $\hat{h}$ does not.

[c] Morphologically and phonologically conditioned vowel lowering is responsible for the appearance of most mid vowels in the language. However, there is some indication that they are marginal phonemes—with *e* being closer to a true phoneme than *o*.

[d] There is a phonological distinction between C’ and Cʔ.

[e] Echo vowels appear before *r* in some instances.

[f] A quick examination indicates that Olmsted’s schwa corresponds to an *a* in Len Talmy’s transcriptions. (Cf., e.g., *qəswīwo/k’**a**sw’íw’haw* (LT) ‘man’.)

1.3 Achumawi phonology (Nevin (1998))

[11] Achumawi consonant inventory (normalized)

p	t	c	k	q	
p^h	t^h	c^h	k^h	x	
p’	t’	c’	k’	q’	ʔ
	s				h
m	n				
m’	n’				h’
	l				
	l’				
w	y				
w’	y’				

[12] Achumawi vowel inventory

i		u
e		o
	a	

length :

[13] See Nevin (1998) for further details about Achumawi phonology.

2 Reconstructions

2.1 Consonants

[14] Olmsted (1964:62) reconstructs the Proto-Palaihnihan consonant system with full series of stops, fricatives, and affricates at seven places of articulation.

[15] Achumawi *x* corresponds to Atsugewi *q*. Achumawi is missing q^h from its series of aspirated stops, suggesting that this was the Proto-Palaihnihan q^h.

ACHUMAWI	ATSUGEWI	GLOSS
tá**x**tats	tá:**q**e	‘acorn’
ja**x**nəj	sí**q**təna	‘lizard’
	sí**q’**tana (LT)	
ta**x**ta**x**i	ta**q**tá**q**i	‘red (pink)’

[16] The *x* – *q* correspondence is not exceptionless: cf. Ac. *tá**x**kə* At. *ta**yh**áq* ‘dust’.

[17] The sound change *PP q^h > At. *q* may have had a specific context, since Atsugewi retains q^h. Alternatively, *PP *q* may have changed to At. q^h in some context. Atsugewi q^h (in Len Talmy's transcriptions) corresponds to Achumawi *q*.

ACHUMAWI	ATSUGEWI	GLOSS
jó**q**a	ju**q**a	'blackbird'
	c'ú**q**^{h}a (LT)	
a**q**unwi	akon	'grandfather'
	ʔa**q**^{h}ón (LT)	

[18] Achumawi *h'* corresponds to Atsugewi $\hat{h}$, suggesting a sound change where *PP *h'* > At. *h* with vowel lowering where relevant (recall that Atsugewi h and $\hat{h}$ differ in that $\hat{h}$ lowers an adjacent high vowel).

ACHUMAWI	ATSUGEWI	GLOSS
la**h'**	ná**h**a	'head'
	ná**h**a (LT)	
ja**h'**waj	ja**h**waj	'raccoon'

[19] Achumawi *l* corresponding to Atsugewi *r* is reconstructed as *PP *r*.

ACHUMAWI	ATSUGEWI	GLOSS
samta**l**	samta**r**i	'blue'
	samtá**r** (LT)	
silli**l**	sini**r**isõ	'dizzy'

[20] Elsewhere, Achumawi *l* corresponds to Atsugewi *n*. We speculate that this correspondence reflects the lexicalization of an old sound-symbolic consonant alternation among coronals that has analogues in other Hokan languages.

ACHUMAWI	ATSUGEWI	GLOSS
laʔtò:	**n**aʔto:p	'cedar'
	nat'ó:p (LT)	
as**l**aj	əs**n**ejá	'hammer'

[21] The following is a proposed inventory of Proto-Palaihnihan consonants:

p	t	c	k	q		
p^h	t^h	c^h	k^h	q^h		
p'	t'	c'	k'	q'		ʔ
	s					h
m	n					
m'	n'					h'
	l	r				
	l'	r'				
w	y					
w'	y'					

2.2 Vowels

[22] Olmsted (1964:63) gives a typologically untenable reconstruction of the Proto-Palaihnihan vowel system with sixteen short vowels and twelve long vowels.

[23] With respect to the overall vowel system, the main question is whether three or five vowels should be reconstructed for Proto-Palaihnihan.

[24] To decide this question, it will first be valuable to look at an important sound change which can be deduced from Olmsted's cognate sets.

[25] In Achumawi, glottal stops, glottalized consonants, velars, and uvulars lowered **i* to *e* and **u* to *o* when adjacent to them.

ACHUMAWI	ATSUGEWI	GLOSS
j'**e**napši:ta	j**i**na:pswita	'black ant'
k**e**n**e**k	k**i**n**i**ʔki	'jackrabbit'
	k'n**é**k'i (LT)	
l**e**ʔtsaq	l**i**ssa	'pike'
y**e**q'**e**law	**i**k**i**raw	'net'

ACHUMAWI	ATSUGEWI	GLOSS
j**o**qa	j**u**qa	'blackbird'
j**o**je	j**u**qji	'bone'
	c**ú**c'iyi (LT)	
l**ó**qmè	l**u**khmijji	'morning'
	l**u**km'ic-c'i (LT)	

These changes are not exceptionless. See, e.g., *kili:lə* 'squirrel, small' and *tuʔwami* 'shirt'.

[26] This sound change in Achumawi is paralleled by a synchronic pattern in Atsugewi where *h* triggers alternations lowering *i* and *u* to mid vowels.

[27] The correspondences exemplified in the above tables suggest that the mid vowels are innovative in Achumawi and their appearance was triggered by allophonic variation. A comparable account has been developed for the emergence of five-vowel systems in Yuman (Langdon 1976).

[28] Olmsted gives other correspondence sets which might suggest reconstructing five vowels for Proto-Palaihnihan, but which, under scrutiny, do not offer strong evidence.

[29] There are correspondences between *e* and *e* and *o* and *o* in Achumawi and Atsugewi.

ACHUMAWI	ATSUGEWI	GLOSS

as**e**h'la	ass**ē**ʔla	'sky'
	ʔas**é**hl'a (LT)	
j**e**na:jj̃iqqa	j**e**ne:stikā	'bird'
	c'nécc'ikaʔ (LT)	
j'oq**e**	j'oq**e**si	'yellowhammer'
plaq**e:**s	plaʔq**e:**s	'blue crane'
	plaq'**í**s (LT)	

ACHUMAWI	ATSUGEWI	GLOSS
j'**o**qe	j'**o**qesi	'yellowhammer'
sq**o**t	sk**o**t	'pipe, stone'
	sq'**o**t (LT)	
p**o**ʔwā	p**o**kwāy	'spoon'
alu**j****o**q	aruj**ō**q	'mudhen'
	ʔlúc**u**k (LT)	

The fact that many of these example words contain mid vowels adjacent to uvulars, velars, glottal stops, and glottalized consonants is not a coincidence—it's true for nearly all of the forms with these correspondences that Olmsted cites.

[30] A likely explanation for many of these correspondences is that mid vowels originated in Achumawi via the **i,*u>e,o* sound change mentioned above, and they were borrowed into Atsugewi. Olmsted states, "There has been ample opportunity for borrowing between Achumawi and Atsugewi (1964:1)." He further mentions that many Atsugewi speakers learned to speak Achumawi but not the other way around, suggesting that the possibility of Atsugewi containing borrowings from Achumawi is a likely one.

[31] In contrast to a number of good correspondences for *o,e~i,u* between Achumawi and Atsugewi, there are very few for *u,i~o,e* between the languages.

[32] Olmsted (1964:30) gives only *isstath~pe:ste:k* 'gopher' for an *i~e* correspondence.

[33] The *u~o* correspondences are considerably better, but only the one found in the words for maternal grandfather is particularly strong.

ACHUMAWI	ATSUGEWI	GLOSS
jat'**ū**l	jwiʔt**ō**r	'to wash'
aq**u**nwi	a:k**o**n	'maternal grandfather'
	ʔaq^{h}**ó**n (LT)	
w**ū**:wĩya	w**o**huwijiʔ	'to run away'

[34] Olmsted also noted various other correspondences. Not surprisingly, three of these are *i~i*, *a~a*, and *u~u*. Many of the others are more striking. For example, there are various correspondences between apex vowels.

ACHUMAWI	ATSUGEWI	CORRESPONDENCE	GLOSS
isat	**a**smak	i~a	‘ear’
ah’ti	**i**sti	a~i	‘blood’
j**u**lmāta	j**i**lmāʔtay	u~i	‘mat’

[35] While some of these correspondences might be explainable due to various sound changes, it is likely that many of them are the result of frozen alternations from some very old ablaut process—vowel ablaut of this sort is documented in various Hokan languages (Kaufman 1988:103–5). Len Talmy (personal communication) has documented such ablaut in Atsugewi.

[36] Certain comparable alternations seem readily explained by positing frozen ablaut and the diachronic lowering rule for Achumawi or the synchronic lowering rule for Atsugewi.

ACHUMAWI	ATSUGEWI	CORRESPONDENCE	GLOSS
ēqōʔy̌ī	w**ā**qhōy	e~a	‘dull’
h**a**q	h**o**qi	a~o	‘two’
t**o**qpolū	t**e**qpuru	o~e	‘skin’

[37] The balance of the data suggests that Proto-Palaihnihan had a three-vowel system with allophonic mid vowels and, perhaps, a marginal *e* phoneme.

[38] Within the scope of Hokan generally, the data from Palaihnihan certainly disfavors a five-vowel reconstruction for Proto-Hokan and would seem to favor a three-vowel system for the language. (See Good (to appear) for an overview of the issues.)

[39] Finally, it is clear that length should be reconstructed for the Proto-Palaihnihan vowel system, as well. Length seems to correspond generally. There are discrepancies, many of which are readily viewed as the result of compensatory lengthening from lost segments.

3 Conclusion

[40] The Proto-Palaihnihan consonant inventory with a three-way contrast in stops among plain, aspirated, and glottalized, is reconstructible fairly straightforwardly from the available correspondence sets.

[41] A three-vowel system seems most likely for Proto-Palaihnihan with productive vowel ablaut and allophonic variation with high vowels surfacing as mid vowels in certain environments.

[42] Further data on the Hewisi dialect of Achumawi will become available, as fieldwork is in progress with semi-speakers who seem to have intact phonemic inventories.

[43] More detailed reconstruction of the sound changes affecting Achumawi and Atsugewi will require morphological reconstruction. Len Talmy's field notes should prove invaluable for this.

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