The use and misuse of Yawelmani/Yowlumne in the history of linguistics

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Yawelmani (or Yowlumni [jawlumni]) is a Valley Yokuts dialect that was spoken in South Central California (now extinct). Other dialects: Chawchilla (next speaker), Choynimni, Chukchamni, Gashowu. Wikchamni . Main source: Newman 1944.

"The descriptive machinery (of Newman 1944, R.N.) [..] is enormously cumbersome; it is always difficult, and in a few cases impossible, to follow the exposition and find (or construct with assurance that one is right) the actual form." (Hockett 1973:63).

"Data from Yawelmani, particularly on verbs, [are] used repeatedly in courses designed to train apprentice linguists in the analytic techniques of descriptive linguistics [...]. A consequence of this iterated and widespread pedagogical use is that a journal article on Yawelmani (or Yokuts) will now catch the eyes of a few linguists in every part of the world, most of whom will leaf silently past an article on any other aboriginal language of North America." (Hockett 1973:64).

Yawelmani is important for the recent history of phonology because of at least 5 issues (some of which are interrelated):

- the existence of *conspiracies* of rules with the aim to prevent CCC clusters (Kisseberth 1970)
- templatic morphology induced by affixes (Archangeli 1983, 1984)
- vowel rounding harmony separate for high and non-high vowels
- directionality of syllabification (Noske 1985, 1992), Archangeli (1991).
- "ghost" segments that show up only if syllable structure allows for them (Noske 1985, 1992, Zoll 1993, 1994, 1995)

I. Conspiracies in Yawelmani to avoid word final biconsonantal clusters and word internal triconsonantal clusters.

(1) Epenthesis $\emptyset \rightarrow V / C\_\_C \begin{Bmatrix} \# \\ C \end{Bmatrix}$

(2) Examples of the application of Epenthesis

a.	underlying representation	puːlm	'husband' subjective case
	rule (1)	puːlim	
	vowel harmony	puːlum	
	lowering of long vowels	poːlum	
	surface representation	poːlum	
b.	underlying representation	paʔt+hn	'fight' + aorist
	Epenthesis (1)	paʔit+ihin	
	Two side open syllable del.	paʔit+hin	
	surface representation	paʔithin	

(3) Consonant Reduction $C \rightarrow \emptyset / CC+\_\_$

(4) Example of the application of consonant reduction

underlying representation	hall+hatin+iːn	'lift up' + desiderative + future
Consonant reduction (2)	hall+atin+iːn	
lowering of long vowels	hall+atin+eːn	
surface representation	hallatineːn	

Kisseberth asks linguists to look at the relationship he felt between the rules. Since the publication of Kisseberth's article, conspiracies have been noted in a great many languages, and the term 'conspiracy' has been added to the lexicon of linguistics.

The conspiracy is in fact much greater: in addition to this, there exist processes of (i) shortening of long vowels in closed syllables, (ii) left vowel deletion in hiatus (V→ Ø / __V). These processes, along with Epenthesis (1) consonant Reduction (2) all take part to ensure that syllables have the forms CV, CV: or CVC exclusively.

II. Templatic morphology.
Archangeli (1983, 1984) demonstrates that Yawelmani verbs use the three patterns - CVC(C), CVVC(C), or CVCVV(C): each may be the default template for a verb or may be imposed by a suffix.

Examples of default template (Archangeli 1985:262-266; there is a process of long high vowel lowering):

(5)

neutral pattern specific to the verb in question	stem	aorist	passive aorist	
IA1 CVC	caw-	cawhin	cawhit	'shout'
IIA1 CVCC	ʔamc-	ʔamichin *(2nd vowel epenthetic)*	ʔamcit	'approach'
IA2 CVVC	laan-	lanhin *(1st vowel shortened)*	laanit	'hear'
IIA2 CVVCC	haatm-	haatimhin *(2nd vowel epenthetic)*	hatmit *(1st vowel shortened)*	'dance'
IB CVCVV	lagaa-	lagaahin	lagat *(2nd vowel shortened)*	'spend the night'
IIB CVCVVC	biniit-	binethin *(2nd vowel lowered and shortened)*	bineetit (*2nd vowel lowered*)	'ask'

Examples of templates selected by the affix:

(6)

template selected by the suffix	underlying	surface	
CVCC	hiwt - (ʔ)inʔaj	hiwʔtinʔaj	'while walking'
CVCVVC	hiwiit-iin	hiweeten	'will walk'
CVVCC	hiiwt - (ʔ)ihni	hewʔtihni	'one who is roaming'

III. Left-to-right vowel rounding harmony, separate for high and non-high vowels. A subsequently applying process of long vowel lowering can render this process opaque.

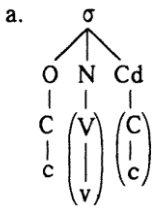
(7)

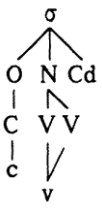
stem selected by the base	*aorist* (-hin)	*passive aorist* (-t)	*gloss*
IA1 dub	dubhun	dubut	'lead by hand'
IAI gob	gobhin	gobit	'take care of an infant'
IA2 hiix	hexhin	heexit	'be fat'
IB lagaa	lagaahin	lagat	'spend the night'
IIA1 lukʔl	lukʔulhun	lukʔlut	'bury'
IIA2 wuuʔy	wooʔuyhun	woʔyut	'sleep'
IIB biniit	binethin	bineetit	'ask'

IV. Directionality of syllabification
(8) possible syllables of Yawelmani .

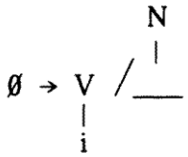
a. CV b. CVC c. CV: (CV_iV_i)

(9) templates of the *Yawelmani syllable*

a. 

b. 

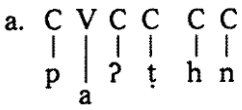
(10) *Yawelmani Epenthesis*



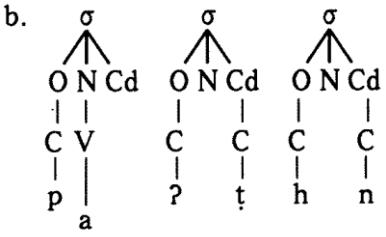
(11) *syllabification parameter settings for Yawelmani*
- a. geometry parameter setting: three places
- b. obligatory incorporation parameter setting: Cs and Vs
- c. directionality parameter: RL
- d. cyclicity parameter: off

Underlying forms

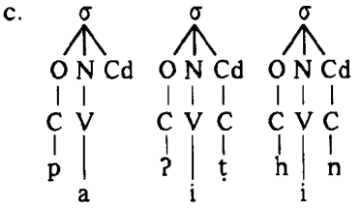
(12)

a. 

Syllabification:

b. 

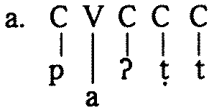
Epenthesis (10):

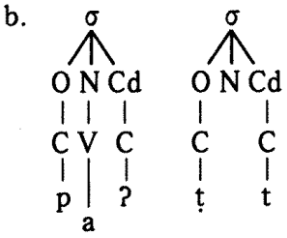
c. 

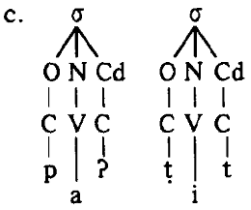
phonetic outcome:

d. paʔiṭhin

(13)

a. 

b. 

c. 

d. paʔṭit

Syllabification works from right to left, and empty nuclei are inserted into places where otherwise no syllable could be formed. Unlike previous analyses, there is no overgeneration of syllables and/or epenthetic vowels: epenthesis takes places only in places where the epenthetic vowels show up on the surface. Also other processes, like shortening and left vowel deletion in hiatus position are accounted for.

V. "Ghost" segments (treated by Noske (1985, 1992), Zoll 1993, 1994, 1996)
There are a number of affixes with alternating vowels of or consonants. The alternating consonants show up when they fit in the syllable structure, the vowel show up when necessary for a permissible syllable structure.

(14) desiderative-aorist -(h)atin-hin
IA1 /dub+(h)atin+hin/ [dubhatinin] *IIA* /lukʔl+(h)atin+hin/ [lukʔlatinhin]

(15) dubitative -(a)l (examples from Neman, p. 120)
IA /xat+(al)/ [xatal] 'eat' *IB* /ʈʔehee+(a)l/ [ʈʔehel] (after shortening of *ee*; if were not a ghost vowel, *ee* would habeen deleted because of left vowel deletion in hiatus (see above).

Second part: Yokuts as a testing ground for linguistic honesty (or: The misuse of Yawelmani/Yowlune in the history of linguistics)

Weigel (2005: ch. 5), discusses the many unattested forms that are used in the litterature. A quote from McCarthy:

(16) "The Yokuts data in this article have, for the most part, been cited from Kenstowicz and Kisseberth (1979). *As is customary in studies of this language,* these forms were constructed on the basis of attested examples but may not themselves occur in Newman (1944)."
(McCarthy 1999:355 n. 30, emphasis added)

(17) Kuroda 1967:20 (quoted by Weigel 2005):

Table 2.5 Comitative Forms

	Aorist	Passive Aorist
IA1.	*xatmixhin*	*xatmixit*
	gopmixhin	*gopmixit*
	giy̓mixhin	*giy̓mixit*
	muṭmuxhun	*muṭmuxut*
IA2.	*ṣapmixhin*	*ṣapmixit*
	gobmixhin	*gobmixit*
	meḵmixhin	*meḵmixit*
	'oṭ̓muxhun	*'oṭ̓muxut*
IB.	*pana·mixhin*	*panamxit*
	hoyo·mixhin	*hoyomxit*
	'ile·mixhin	*'ilemxit*
	ċuyo·muxhun	*ċuyomxut*
IIA1.	*pa'iṭmixhin*	*pa'iṭmixit*
	logiwmixhin	*logiwmixit*
	'ilikmixhin	*'ilikmixit*
	hubuṣmuxhun	*hubuṣmuxut*
IIA2.	*'a·milmixhin*	*'a·milmixit*
	mo·xilmixhin	*mo·xilmixit*
	se·niṭ̓mixhin	*se·niṭ̓mixit*
	wo·wulmuxhun	*wo·wulmuxut*
IIB.	*ṗaxaṫmixhin*	*ṗaxaṫmixit*
	'opotmixhin	*'opotmixit*
	hibeymixhin	*hibeymixit*
	ṣudoḵmuxhun	*ṣudoḵmuxut*

Weigel (2005:150): "In addition to the paucity of attested forms (2 out of 48), there are several additional problems with this set of forms:

- The comitative (actually a comitative applicative) is quite rare. Only three examples are attested in Newman 1944. Most textual examples employ a different, analytic construction using the free comitative morpheme *abiʔ* [...].

- Of the vowel harmonic allomorphs *-mix/-mux,* only *-mix* is attested in Yowlumne (*-mux* is attested once in the Gashowu dialect, which is only very occasionally treated in the theoretical literature).
- While it may be consistent with Newman's description (though not obligatory) to consider the vowel in *-mix* epenthetic, the putative allomorph *-mx* is unattested, i.e., there is no attested example of a *-mix/-mx* surface alternation.
- All attested examples, like the two in (4), are in combination with a following (active) aorist morpheme *-hin*. The morpheme sequence comitative-aorist passive is unattested. It is not completely clear even how such forms are to be interpreted, although the order of morphemes would suggest that the passive has scope over the comitative. However,
- In all attested examples, the *-mix* comitative-applicative is added to an intransitive base. There is no way to tell whether this is a principled restriction (which would render passivization impossible) or a coincidental result of the small number of examples. (Modern speakers, who no longer use nor even recognize this morpheme, can be of no help here.) Kuroda's 24 verbs include a mix of transitive and intransitive bases.

Kuroda (1967:17, Kisseberth (1969:37) and Archangeli 1983: (364) posit a "Two side open syllable deletion" rule:

(18) $V \rightarrow \emptyset$ /VC__CV
[-long]

This rule is mainly needed to delete vowels inserted by Epenthesis (as in 2b). However,
"In the specimen of Yawelmani text provided by Newman (1044 240-242), out of 32 different words containing three or more syllables, five have a short vowel in such a position (viz. the forms numbered 27, 50, 51, 86, 101). In other parts of his book also Newman gives forms containing short vowels in 'two sided open syllables'. Kuroda uses this rule mainly to delete vowels that are inserted by overapplication of the Epenthesis rule (1), a fact also pointed out by Kisseberth (1969)." (Noske 1985:259, note 6)

(19) **McCarthy should know better:**
Yokuts has a number of ghost segments (discussed above) that appear only if syllabification allows for them (consonants) or needs them (vowels) They are:

affix	category	dialect(s)	page nr. in Newman
-(a)d	dubitative	Wichamni	120
-(al)	dubitative	Yawelmani, Chawchila, Chukchansi	120
(a)mˀ	aorist	Chachila	123
(i)nʈi	predicated-gerundial	Gashowu, Choynimni	141
-i:sa:/-wsa:-	reflexive/reciprocal	Yawelmani	89
-(i)wʃa:-	idem	Chawchila	89
-(i)wʂa-	idem	Chukchamni	89
-(i)wsa-	idem	Wikchamni	89
-(i)wʃa-	idem	Gashowu, Choynimni	89
-(i)yo:- / (i)wo-.	hortative or priorative	Yawelmani /Chawchila	115
-(i)we-,	idem	Chukchamni	115
-(l)sa:	causative-repetitive	Yawelmani	94
-(h)atin-	desiderative	Yawelmani	114
-kˀ(a)	imperative	Yawelmani, Chawchila, Chukchamni	118
-m(i)	consequent gerundial	Yawelmani, Chawchila, Chukchamni, Gashowu, Choynimni	134
-x(a)	precative	Yawelmani, Chawchila, Chukchamni	119
-(ʔ)ad	durative present	Wikchamni	101
-(ʔ)aniʈ	durative passive future or present	Gashowu	102

-(ʔ)hanʔa-	passive verbal noun	Wikchamni	149
-(h)ne:l-	passive consequent adjunctive	Yawelmani	166
-(ʔ)as- / -(ʔ)aʃ-	durative aorist	Wikchamni / Gashowu, Choynimni	96
-ʔ(h)iy-	consequent adjuntive	Wikchamni, Gashowu, Choynimi	163

McCarthy (2008) treats only -kʔ(a) and -m(i), in order to let his OT framework function. He then writes: "According to Newman (1944:29) and most subsequent analysts, final vowel deletion is limited to CV syllables like /-kʔa/ or /mi/. I believe it is more accurate to say that overt alternations are limited to these suffixes, *since longer or shorter suffixes do not present opportunities for alternations".* (2008:29, fn 2):

This is **not true** for two reasons:
(i) there are many suffixes (of a different form that display the same type of alternation, cf. the list above (but these alternations do not fit into McCarthy's framework);
(ii) there are a number of Yawelmani suffixes of the form -CV, which do **not** exhibit the alternation, e.g. *-ni,* indirect objective, and the single vowel affixes *-i, -a*. The Chukchansi verbal affix *-ta*, narrative aorist, is not truncated either (Noske 1992:98).

(20) Dangers of using contrived data (Weigel 2005:155-157):

- Reliance of erroneous generalizations.

  "The unattested forms in the Yokuts literature sample were created using principles or rules from Newman (1944), a procedure that assumes that Newman got it right. However, Blevins (2004) notes instances where Newman's generalizations are contradicted by his data, e.g. with respect to long high vowels that do not undergo lowering." (2005:155)

- Misapplication of generalizations.

  "Newman's explanations and descriptive rules of Yokuts morphology are often not completely clear. Indeed, no less a linguist than Charles Hockett had to admit (in Hockett 1973) that he had misapplied some of Newman's rules in an earlier published piece (Hockett 1967)." (2005:157)

- Canonization.

  "If other linguists inadvertently adopt the contrived data[note] they can become part of the canon, the crucial data set that is used as a litmus test for new theoretical proposals. This possibility is aggravated by the fact that even those works that acknowledge using contrived forms virtually never mark them individually. This, combined with the difficulties of use that Newman 1944 poses (lack of an index, few paradigms, etc.), mean that checking of attestation status probably will not occur." (2005:157)

  Note: "It is probably significant (albeit an unsystematic and anecdotal observation) that phonologists with whom I have discussed these issues (including some who have published analyses of Yokuts data) are generally either unaware of the existence of contrived data, or assume that it occurs only occasionally to fill in accidental gaps in Newman's data." (2005:157).

"The question I am posing can be put this way: Do the linguists in my list intend the contrived forms they present (a) to help the reader understand their theoretical positions, or (b) to provide support for those positions? Everything about these works suggests (b) rather than (a). Often such a position is explicitly stated: '[these sections] are intended to provide a thoroughly worked out example to secure the empirical basis of the theory presented above.'
(McCarthy 1999:354) (emphasis added)." (Weigel 2005:158)

(21) Cf. Lightfoot (1979), writing about the history of English: "I add to further criteria, k and l *where I have constructed examples, drawing on my own intuitions about M*[iddle] *E*[nglish]." (1979:190).

193, fn. 1. “The examples in (34k) and (34l) *are of my own invention; in general, clefts and full passives are extremely rare in the extant texts of O*[ld] *E*[nglish]. My guess is that these sentences would be grammatical in OE, *although not attested*. (1979:193, fn. 1).

Bibliography

Archangeli, D. (1983a). “The Root CV-template as a Property of the Affix: Evidence from Yawelmani.” *Natural Language and Linguistic Theory* 1, 347-384.

Archangeli, D. (1983b). “Yaweimani Verb Morphology and 3-dimensional Phonology.”*NELS* XIII, 11-28.

Archangeli, Diana B. (1984). Underspecification in Yawelmani phonology and morphology. PhD dissertation, MIT. published in 1988 by Garland Publucations, New York.

Archangeli, D. (1983b). “Yawelmani Verb Morphology and 3-dimensional Phonology.”*NELS* XIII, 11-28.

Archangeli, Diana B. (1984). *Underspecification in Yawelmani phonology and morphology. Outstanding dissertations in linguistics.* PhD dissertation, Massachusetts Institute of Technology. Published in 1988 by Garland, New York.

Archangeli, Diana B. (1985). “Extrametricality in Yawelmani.” *Linguistic review* 4 (2), 101-120.

Archangeli, Diana B. (1986). “Yokuts harmony: Evidence for coplanar representation in nonlinear phonology.” *Linguistic Inquiry* 16, 335-372.

Archangeli, Diana B. (1991). “Syllabification and prosodic templates in Yawelmani.” *Natural Language and Linguistic Theory* 9, 231-283.

Blevins, Juliette (2004). “A reconsideration of Yokuts vowels.” *International Journal of American Linguistics*. 70,33-51.

Hockett, Charles (1967). “The Yawelmani basic verb.” *Language* 43, 208-22.

Hockett, Charles (1973). “Yokuts as a testing-ground for linguistic theory.” *International Journal of American Linguistics* 39, 63-79.

Kisseberth, Charles W. (1969a). Theoretical implications of Yawelmani phonology. Ph.D. dissertation, University of Illinois, Urbana.

Kisseberth, Charles W. (1969b). “On the abstractness of phonology: the evidence from Yawelmani,” *Papers in Linguistics* 1, 248-282.

Kisseberth, Charles W. (1970). “On the functional unity of phonological rules.” *Linguistic Inquiry* 1, 191-306.

Kuroda, Sige-Yuki. (1967). *Yawelmani phonology*. Special technical report (No. 15); M.I.T. research monograph series (No. 43). Cambridge, MA: M.I.T. Press, Massachusetts Institute of Technology, Research Laboratory of Electronics.

Lightfoot, David W. (1979). *Principles of Diachronic Syntax.* Cambridge: Cambridge Univ. Press.

McCarthy, John J. (1999). “Sympathy and phonological opacity.” *Phonology* 16.3, 331-399.

McCarthy, John J. (2008). *Doing Optimality Theory*. Malden, MA & Cambridge: Blackwell.

Newman, Stanley S. (1944). *Yokuts language of California*. Viking Fund publications in anthropology (No. 2). New York: Viking Fund. (Reprinted 1963 & 1968, New York: Johnson Reprint Corp.).

Noske, Roland (1985). “Syllabification and Syllable Changing Processes in Yawelmani.” In Harry van der Hulst & Norval S.H. Smith (eds.), *Advances in Nonlinear Phonology*, Dordrecht: Foris, 335-361.

Noske, Roland (1993). *A Theory of Syllabification and Segmental Alternation. With studies on the phonology of French, German, Tonkawa and Yawelmani*. Tübingen: Niemeyer.

Weigel, William F. (2005). Yowlumne in the Twentieth Century. PhD dissertation, University of California, Berkeley.

Zoll, Cheryl (1993). Directionless Syllabification and Ghosts in Yawelmani. ROA 28.

Zoll, Cheryl (1994). “Subsegmental Parsing: Floating Features in Chaha and Yawelmani.” *Phonology at Santa Cruz* 3.

Zoll, Cheryl (1996). Parsing Below the Segment in a Constraint Based Framework. PhD dissertation, University of California, Berkeley. ROA 143. Published in 1998 in Stanford: CSLI.