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THE MORPHOPHONOTACTICS OF COLVILLE FULL VOWELS[1]

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0. In this paper I describe the circumstances under which a Colville word has, in addition to a stressed full vowel (i, a, u), another, unstressed full vowel. Such unstressed full vowels are found consistently, obligatorily, and only in their full grade, in (a) borrowings; (b) in about thirty affixes; and (c) in compounds. Other unstressed full vowels are the syllabic (phonotactic) realization or the (morphophonemic) consequence of consonants. Remaining unstressed vowels are unexplained in morphologically unanalyzable words.

1.1. Colville has borrowed a number of words from French. Disyllabic French sequences of article plus word are borrowed in Colville in their syllabic integrity and with final stress. Thus lapál 'shovel', laprít 'bridle', lasmís 'shirt', latáp 'table', lawán 'oats', laklí 'key' reflect Fr lap-l, labrid, laš(ə)miz, latábl(ə), lawán, laklé. Cv lipúl 'hen' reflects Fr lapúl with Fr a adapted to Cv i, probably owing to the form of the Fr plural lepúl, and Cv lipwá 'peas' also reflects a plural form lepwá. A

similar explanation is not necessary to account for Cv likók 'rooster' (o is a marginal phoneme) from Fr ləkɔ́k because Fr ə = Cv i is not unusual (cf. lití 'tea' Fr ləte, with infrequent/improbable plural form). I need only point out that Cv *ləkók is not allowed, and the only possible vowelless alternative would be the non-occurring l̩kok.

Trisyllabic Fr sequences of article plus word are borrowed as syllabic l̩ plus disyllabic form; thus l̩kapí 'coffee', l̩kasát '(money) trunk', l̩qalát 'biscuits', reflect Fr ləkafɛ́, lakasɛ́t, and lagalɛ́t; but there is at least one exception to this pattern, Cv laputáy Fr labutɛ̂j.

Other Fr words, mostly proper names, are borrowed di-or tri-syllabic, e.g. supí 'Sophie' sofí, susáp 'Joseph' žɔsɛ́f, yasukrí 'Jesus Christ' žɛsykrí.

1.2. Borrowings from English are not as numerous as those from French. Cv adaptations of Eng compounds, phrases and words retain stress as in English: kutpáysəlx 'they said good bye', kʷʕáta 'quarter' capsúya 'chop suey', utmíl 'oatmeal', kulitáem 'Cooley Dam'. ruspəltlék 'Roosevelt Lake', except for sultás 'soldier', a form that cannot be assumed borrowed from French because (1) it lacks the equivalent of the Fr article, and (2) it has a final s for which there is no corresponding Fr phone.

2.1. Several Cv prefixes have an unstressed full vowel: (1) the possessives i(n)- 'my' and a(n)- 'your sg.', e.g. i-k-s-cún-əm 'I'm telling you', an-k̓əɬ-cút-(t)n̩ 'your upbringing'; (2) the locative na- (the function and form of which, contrasted with the common locative n-, is not entirely clear to me), e.g. na-mút 'it sat there', na-ɬâʔ 'on the other side'; (3) the lexical prefixes pu- 'wife', qaʔɬ- 'children', t̓i- 'deceased', e.g. pu-ylmíxʷəm 'the chief's wife', qaʔɬ-ylmíxʷəm 'the chief's children', in-t̓i-qíck 'my deceased older brother'.

2.2.1. Monovocalic suffixes. (1) -aʔx 'inchoative' (analyzable as the diminutivized form of the progressive -x), e.g. k-s-wây̓-aʔx 'he's going to end it'. (2) -iʔ 'transitive pl. imperative', e.g. ɬʔá-nt-iʔ 'get him!'. (3) -iʔ 'past', e.g. lút-iʔ 'not yet, before'. (4) -wiʔ 'intransitive pl. imperative', e.g. ɬláp-wiʔ 'stop a minute!'. (5) -aʔ, of indeterminate meaning, in a great number of forms, sometimes not clear if segmentable, e.g. s-k-c̓íkʷ-aʔ 'left (hand side)', kʷtîx̣ʷ-aʔ 'lice', p̓ín-aʔ 'basket', q̓ípxʷ-aʔ 'nut', sílxʷ-aʔ 'big', q̓míl-aʔ 'greedy', sînc-aʔ 'younger brother',

síy-aʔ 'dried service berry', ʔíṭxʷ-aʔ 'camas', qʷúps-aʔ 'great-grandchild', ṫúp-aʔ 'great-grandfather', ċáẏx̣-aʔ 'crayfish', ḱám-aʔ 'pine needle', sám-aʔ 'Frenchman', skáw-aʔ 'man's name', yánxʷ-aʔ 'basket', s-x̣áx̣-aʔ (?) 'man's father-in-law', ɬ-kí-kx-aʔ 'older sister', s-xʷú-xʷy-aʔ 'ant', qá-qn-aʔ 'father's mother', ṗú-ṗs-aʔ 'fish heart', ɬ-qá-qc-aʔ 'older brother', s-x̣p-x̣íp-aʔ 'male black bear', c-ṗəy-ṗyáq-aʔ 'ripe berry', qʷ-qʷíp-aʔ 'little pouch', s-ƛ̓-ƛ̓úkʷ-aʔ 'wood turning to pitch', cə-cwíx-aʔ 'creek', kə-kwáp-aʔ 'dog', etc. (6) -maʔ, of uncertain meaning, e.g. s-cún-maʔ-s 'their telling them', kʷ i-s-ʔúkʷ-maʔ-m̩ 'my leaving you'. (7) -aʔst '?', e.g. s-c-k̓ʷúl̓-aʔst-s 'he fixes arrows'. (8) -skaʔ '?', e.g. lut a-k-s-xʷús-əskaʔ 'don't get anxious'.

2.2.2.1 Bivocalic suffixes. Strong (always stressed) bivocalic suffixes occur regularly with two vowels, the first of which bears stress. (1) -útyaʔ 'poor(ly done)', e.g. ċq̇-əlṅ-útyaʔ 'a poor bow and arrow'. (2) -ípnaʔ 'lips', e.g. s-ən-ɬs-ípnaʔ 'cigar'. (3) -sqáx̣aʔ 'animal, horse', e.g. s-ən-kɬ-ċaʔ-sqáx̣aʔ 'horse'. (4) -ípas 'chin', e.g. k̓əɬ-cy-ípaʔs-ənt 'hit him on the chin'. (5) -áyaʔ 'not real, pretend', e.g. ʔət-ʔətx-áyaʔ 'he pretends to be asleep'. (6) -áyaʔqən 'top of head', e.g. c-s-ɬq̇-əlx-áyaʔqən 'he has a night cap on'. (7) -úmaʔ '?', e.g. k̓ʷə-k̓ʷy-úmaʔ 'small'. (8-9) -áliʔs, -íliʔs 'related', e.g. kʷ i-s-tm-áliʔs 'I'm your relative', səncaʔ-cʔ-íliʔs-c 'his little brothers'. (10) -ápustn̩ 'loins' n̩-ɬqʷ-ápustn̩ 'loin cloth'. (11) -íʔpustxən 'step', e.g. nəqs-íʔpustxən 'takes one step'. (12) -álqʷaʔ '?', e.g. k-ɬʔ-álqʷaʔ 'Marcus (place name)'.

2.2.2.2. The unstressed vowel of weak bivocalic suffixes occurs only in its full grade, and is never lost. The stress bearing vowel of the suffix, on the other hand, occurs either in its full grade (stressed), or is lost, when stress falls elsewhere on the word.[2] Each suffix is exemplified with and without its stress-bearing vowel: (1) -úlaxʷ 'ground', e.g., ṫək̓ʷ-k̓ʷ-úlaxʷ 'it fell on the ground', ɬúkʷ-l̓axʷ 'dust'. (2) -iɬcaʔ 'meat, surface, inside', e.g. l̩q-íɬċaʔ-n̩ 'I pluck feathers', n̩-wík-ɬcaʔ-m̩ 'he sees inside'. (3) -íplaʔ 'handle', e.g. c-k-sl̓-íplaʔ 'she disappeared', t-x̣áq̇-plaʔ-nt-xʷ 'you'll get paid'. (4) -íċaʔ 'cover', e.g. qʷəsp-íċaʔ 'buffalo robe', k-mús-ċaʔ 'four packages'. (5) -ínaʔ 'ear', eg. n-wnxʷ-ínaʔ 'he believed', n̩-súxʷ-naʔ 'she understood'. (6) -ísk̓it 'pharynx', e.g. n-yq̇-ísk̓it-əm 'he jumped and groaned', k-s-ɬáʔxʷ-sk̓ít-aʔx (phonetics uncertain) 'he's going to rest'.

-askayt

2.3. The single infix with unstressed full vowel is -a?- 'diminutive,/repetitive'. Although the semantic distance between 'diminutive' and 'repetitive' does not strike me as necessarily great, I am not yet able to identify their common denominator for a more appropriate label. Nor have I found convincing evidence to separate the 'diminutives' from the 'repetitives', and possibly other infixes. In any case, the infix is very common in Cv, and cognates are sure to occur in other IS languages. Spokane -e- 'repetitive aspect', discussed by Carlson (1978: 72-90) is, to my knowledge, the only likely cognate identified to date. -a?- is found infixed in roots and in affixes, following, with one exception discussed below, all other derivation and inflection.

2.3.1. The rules that govern its affixation to roots are:

(1) immediately after C_1 of biconsonantal roots (with or without a vowel)

(2) immediately after the first consonant of a cluster in poly-(tri- or more) consonantal roots.

Examples follow.

(1) CC roots -- C-a?-C

/k̓t	t-k̓a?t-ús-əm-s	he gets close to it
/mt	m̓ú-m̓a?t	sit a little
/pq	c-ən-pa?q-cín	dawn
/sl	k-səl-sa?l-íc̓a?	dappled grey horse
/wl	n̓-wa?l-íl-əm-s	it puzzled him
/ws	n̓-wa?s-núxʷ	the sun was high
/x̓s	n̓-x̓a?s-íls	he felt good about it
	x̓a?s-íkst-m-ən	I aimed at it
	n̓-x̓a?s-íw̓s	some good horses
	n̓-x̓a?s-ína?-m̓-s	he enjoyed hearing it

(2) Polyconsonantal roots -- C-a?-CC, CVC-a?-C, C-a?-CVC

/t̓k̓ʷt	t̓í-t̓a?k̓ʷət	little lake
/q̓ʷst	s-q̓ʷa?st-ínk	he pulled it from the stomach
/?mt	s-ən-?íma?t	grandson
/xist	s-k-kəm-xísa?t	little bear
/ɬt̓p	ɬət̓-ɬa?t̓áp	he jumps up and down
/mnk	s-ən-ma?ník-mən	out house

2.3.2. In cases where -a?- infixation is accompanied by some form of reduplication that copies -a?-, there are two possibilities: (1) in words

where stress does not occur on the root, -a?- is inserted in the root according to the rules already given; however, intensive reduplication must be viewed as following -a?- infixation (as an exception to the norm given), copying C_1a?- and producing forms like C_1a?-C_1a?$C_2(C_3)$...
(2) if word stress occurs on the root, then (a) partial prefixing reduplication (C_1- of root) is followed by (b) -a?- infixation, with -a?- inserted in the C_1C_1 cluster. Although these two processes are very common--and appear to be in complementary distribution--I cannot identify their function. All I can say is that this -a?- infixation, accompanied by these two types of reduplication, changes the meaning of the root in a special, non-predictable way.

2.3.2.1. C_1a?-C_1a?$C_2(C_3)$... Examples:

/p̓xʷ	n̓-pa?-pa?xʷ-ús	it shone in his eyes
/ws	n̓-wa?-wa?s-xán	his feet left the ground
/k̓l	c-k̓a?-k̓a?l-í?st	he went slowly
/ps	pa?-pa?s-ínk	he felt bad
/cxʷ	i-s-ən-ca?-ca?xʷ-s-c̓ím	I am weak boned
/qʷl	s-ən-qʷa?-qʷa?l-tán	courthouse
/qʷm	qʷa?-qʷa?m-scút	he practiced
/ɬʕt̓	ɬa?-ɬa?t̓-xʕán	he got his feet wet
/t̓k̓	s-t̓a?-t̓a?k̓-míx	virgins

2.3.2.2. C_1a?-$C_1(C_2)$V... Examples:

/kc	ka?-kíc-ənt-s-ən	I found you
/k̓ʷn	n̓-k̓ʷa?-k̓ʷín-əm	she picked some
/pk	s-c-pa?-pík	boards
/pn	pa?-pín-n̓	I fold it severally
/tm̓	k-s-ta?-tím̓-a?x	will go to strange places
/wl	wa?-wíl	weaves from side to side
/pt	pa?-pút	they look alike
/q̓ʷx̓	c-q̓ʷa?-q̓ʷúx̓-xən-m-əlx	they're having a race
/plx	s-ən-pa?-púlx-tn̓	hotel
/x̓?	x̓a?-x̓á?	he's great
/ykʷ	ya?-yákʷ-a?	he's stingy
/my	s-əc-ma?-máy-a?	student

2.3.3. The rules that govern the infixation of -a?- to suffixes follow:

(1) in necessary contradiction to its form, -a?- is added before single-consonant suffixes

(2) immediately after the first C of a cluster in all other suffixes.

Examples follow.

(1) -C -- -a?-C

-t	ɬíl-a?t	rain sprinkle
	c-cám̓-a?t	little

(cf also -a?x 'inchoative')

(2) -V́CC -- -V́C-a?-C

-alqʷ	t̓i-t̓q̓-ála?qʷ	short person
-aqs	n̓-q-qəlxʷ-áqa?s	little trail
-iɬxʷ	c-qə-qc̓-íɬa?xʷ	little log house
-iw̓s	kɬ-x̓ə-x̓s-íw̓a?s	little field
-ilp	s-t̓ə-tk̓ʷ-íla?p	pillow

(3) -CV́CC -- -CV́C-a?-C

-ʕalqʷ	s-p̓-pa?c̓-ʕála?qʷ	new shoots

(4) -V́CCC -- -V́C-a?-CC

-ikst, -akst	c-t-xəm-m-u?s-áka?st	one in each hand
-isxn	cə-cm̓-ísa?xən	a handful of small rocks

(5) -CV́CCC (further analyzable, but functioning as a unit) -- -CV́C-a?-CC

-qinxn	s-tun-qína?xən-s	his little toe

(6) -CV́CCCC (further analyzable, but functioning as a unit) -- -CV́C-a?-CCC

-ipɬxn	c-cəm-cm̓-ípa?ɬxən	sharp-heeled shoes
-qinkst	s-tun-qína?kst	little finger

There is only one apparent exception to these rules of infixation, s-ənk̓ʷ-ənk̓ʷ-əspína?tk 'yearlings' in which -(i)ntk behaves as though it were a unit suffix. The etymology of the form suggests a root /pn and a suffix -tk.

2.4. -a?-, never bearing stress, connects stems in a few compounds. How it differs from -ɬ-, the other compound connecting morpheme, is unclear to me. The topic of compounding deserves separate treatment, and in this context I can only give a couple of examples: a-s-k̓ʷl̓-a?-xʷilp 'a place made for you to lie down', n̓-?əɬn-a?-s-qílxʷ-tn̓ 'man-eater'.

3.1. Unstressed i is the syllabic realization of interconsonantal or word-initial preconsonantal y, and u of w. Likewise i?→ y̓ and u?→ w̓. Examples follow.

/sʕy	si-si-ʕálx	they make noise
/wy̓	wiʔ-st-ín	I finish it
/ylmxʷ	ilmíxʷəm	chief
/cʕw	k-cu-cu-ʕáqstxən	fringed chaps
/c̓w̓	k-c̓uʔ-c̓íw̓-s-əm	he washed his eyes

Note that the stressed "real" vowels of /ylmxʷ and /wnxʷ disappear when stress moves away from them, while the "false" vowels (< y and w) are realized as vowels: s-ilmxʷ-íɬxʷ 'chief's house', n-unxʷ-ína? 'he believed it'.

3.2. Syllabic n (i). Interconsonantal suffixal n (not root or prefixal) syllabifies to i before s or ɬ. Carlson has discussed the homologous phenomenon in Sp (1976:133-9). I am not sure of the phonetics of certain Cv forms: does ʔ follow i, and therefore n̓ → iʔʔ For example, -ikn̓, ṇ-ɬq̓-əlx-íkiʔ-s 'he lay flat on her back'; -iln̓, ṇ-sp̓-íliʔ-ɬm-ən 'I club you pl'. (Note that in these -nt transitive forms where the person suffix is not stressed -nt 'transitive' is lost morphophonemically. Compare ṇ-ɬq̓-əlx-ík(n)-nt-xʷ 'you lay flat on his back'.)

3.3. I find it useful, when discussing pharyngeal roots, to classify them into (1) biconsonantal roots with C_1 = ʕ; (2) biconsonantal roots with C_2 = ʕ; and (3) polyconsonantal roots with C_2 = ʕ most commonly. Weak (unstressed) roots of the first two types always retain a syllabic pharyngeal, but I am not sure whether there is a significant difference between ʕ̣, aʕ, and ʕa. Roots of the third type lose the pharyngeal to the suffix under the circumstances I described in another paper (1979:17-24). The problems with a definitive classification of pharyngeal roots stem from the difficulty in identifying the phonetic reality associated with them. Whereas I am reasonably sure that I hear /liʕ̓ʷ 'fit' as [liʕ̓ʷ], with /k̓ʕaw 'greet' I vacillate between thinking I hear [k̓ʕaw] and [k̓aʕʷ]. In any case, aside from these phonetic indeterminacies, there is the problem of ascertaining the (underlying) vowel of all these roots without attested (stressed) vowel. The unrounded pharyngeals of these stressed roots syllabify as ʕ̣ = [ʕa]. Thus we have the following forms:

(1) C_1VC_2 -- ʕaC_2

c-ʕac-ɬt-ím	we tied it up
k̓əɬ-ʕal-mín	fence
ṇ-ʕam-ənt-ín	I melt it

ṇ-ʕay-ú́s	his neck is tied
i-kɬ-ʕal-p-əncú́t	I'll be the loser

(2) C_1VC_2 -- $C_1aʕ$

yaʕ-p-cí́n	he's in trouble
s-c-yaʔ-əlscú́t	goods arrive
yaʕ-p-qí́n	lots
ṇ-paʔ-í́ẃs	they're bleached
ṇ-saʕ-m-əncú́t-əlx	they climbed down
c-ən-maʕ-í́tkʷ	it fell in the water

(As examples of pharyngeal roots with attested (stressed) vowels, cf. ʕáx̣-ɬaxʷ-s-əlx 'they harrowed the field'; ʕí́t-mən 'tooth'.)

Reduplicative patterns for roots of groups (1) and (2) differ. Whereas fully reduplicated roots of group (1) preserve a pharyngeal as C_1, those of group (2) syllabify the pharyngeal as a vowel:

(1) C_1VC_2 -- $ʕaC_2$-$ʕaC_2$

c-ʕac-ʕac-ənt-í́xʷ	you tie them
ʕay-ʕay-í́nk-ənt-s	she tickles your belly
ʕaʔ-ʕaʔ-cí́n-m-ənt-s-ən	I'll chew you up

(2) $C_1Vʕ$ -- C_1V-$C_1Vʕ$

kʷu c-t-x̣a-x̣aʕ-p-ú́s-əm-st-xʷ	you keep staring at me
kʷu x̣a-x̣aʕ-ú́s-ənt-xʷ	you fan me
s-yaʔ-yaʔ-ncú́t	he looks around
kʷu luʔ-lí́ʕʷ-ɬt-s	she puts my (shoes) on (me)

Polyconsonantal pharyngeal roots conform to the patterns just outlined:

$(3)_1$ ṇ-ʕaʔc-ʕaʔcəx̣-kəṇ-(n)cú́t he looked behind him

$(3)_2$ k-s-ʔpa-pʔʕaw-m-ənwí́xʷ-aʔx they'll be getting tired of one another

4. Laryngeals (ʔ and h -- but h is rare) occur only contiguous to a vowel. Laryngeal roots, when stress is shifted away from them, do not lose their vowels, unless the laryngeal comes in contact with another (affixal) vowel. Similarly, root-initial ʔ, coming in contact with a preceding c- 'actual' or k- 'resultive', combines with them to yield ć and ḱ respectively. Once the ʔ as such is lost, the vowel that might have followed it will be lost with the shift of stress to another part of the word. Thus, for example, ʔax̣í́l 'act so', ćx̣iɬ (< c-ʔax̣í́l -- 1 ~ ɬ). Examples of laryngeal roots with retained (unstressed) vowels follow:

(1) ʔVC(C), hVC(C)

ʔam-t-ín	I feed him
ʔay-m-íʔws	cross
ʔawt-íp-ən	I follow it
ʔayx̣ʷ-t-íls	he's getting tired
haʔrá-m	he soakes a hide
kʷ i-s-ən-hiʔ-íls-əm	I suspect your feelings
kən k-s-haʕʷ-míst-aʔx	I'm going to get loose
hu-húy	OK

(2) CVʔ, CVh

kaʔcən-mást	he talks dirty
kʷu c-kʔəɬ-ʔaʔ-st-íxʷ	you're jealous of me
n̓-maʔ-ínaʔ-s	he disturbs her
k-caʔ-qníl-ənt-xʷ	you hit him in the groin
k-cah-há-m	it'll fit
wah-waʔá-m	he was barking

In addition to the two patterns just exemplified (root initial and root-final), but rarely, laryngeals may be root medial -- all exhibiting similar behavior and retaining their contiguous vowel. Note, however, that any root-internal -aʔ- sequence is suspect of being infixed, as most actually are. Examples: n̓-xaʔmxʷ-cín 'Moses language' (< */xmxʷ ʔ); kʔəɬ-ən-kʔahkʔʷ-íp-s 'he opened it'. [3]

5. Unexplained unstressed root vowels. In this section I can only list a few of the unanalyzable forms with unexplained unstressed vowels. My assumption is that further work of comparison and internal reconstruction will uncover etymologies that will point to the sources of these unstressed vowels.

(1) a

tanʔmús	(do) nothing
k-ná-naqs	alone
naqs-lúp	one place
k-s-cakʷ-əm-scút-aʔx	he's going to play hard to get
n̓-pan-uʔs-(s)cút	bucking horse

(2) i

ilíʔ	there
síʔpiʔ	hide

	c̓íxʷi?	sap
	stáqi?	white blanket
	st̓iyí?	grass
	már̓wi-s	he mixed it
(3)	u	
	?után	it was there
	?utən-(n)t-íxʷ	you got it
	kʷutún	eel
	?ulús-ən	I gather it
	q̓ʷuχ̓áxən-m-əlx	they're racing
	sumíx	guardian spirit

6. I conclude this descriptive survey of Cv full vowels with two remarks. Synchronically, it is possible, as I have tried to demonstrate, to account for all unstressed full vowels of Cv words as either given (present in the underlying representation of morphemes), or morphophonotactically derived. Diachronically I surmise that Cv laryngeals and pharyngeals have tended to assimilate their contiguous vowels -- whatever their (underlying) original value -- to homorganic [a]. Even though it might be tempting to explore the possibility that all Cv vowels are derivable from consonants (i from y, u from w, a from ʕ, h, ?), the attempt would almost certainly be fruitless. In the first place one would have to explain all Cv cases of i and u contiguous to laryngeal and pharyngeal consonants; and in the second place one would have to contend with the comparative evidence.

FOOTNOTES

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[2]Always-unstressed vowels are more stable than vowels that may bear stress. What are their sources?

[3]I have given examples of i, u, a contiguous to laryngeal and pharyngeal consonants--but I should note that a is far more common than either i or u in those positions.

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