Shifts of Nasals to Vowels in Interior Salish

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0. The preceding study of the variants of the non-perfective suffix of Columbian leads to a fuller examination of the vocalization of nasals in Interior Salish.[1] The phenomenon has been noted several times already (Carlson 1976, Kuipers 1982, Thompson and Thompson forthcoming), but thorough systematic comparative study has not yet been made (Carlson 1974 makes an excellent start). Indeed, it is difficult to make such a study, since many of the necessary data are elusive or undetected. But the analysis of Columbian non-perfective suffixes has led me to find a number of other instances of nasal to vowel shifts in Columbian, and these in turn have led to some speculations about this development in the wider context of Interior Salish.

Shifts of both *m and *n (plain and glottalized) are reported. Some of the shifts are dialectal (as in Shuswap), some are morphophonemic and automatic (Thompson, Columbian, Okanagan, Spokane-Kalispel), some involve free or individual variation (Columbian), some involve related developments of a morpheme (Columbian), and some seem to be historical artifacts already established in the structure of a language. The beginnings of these vocalizations appear to be fairly old (preceding, for example, some important vowel shifts), but some are still synchronically active. This

may be another instance of a sound-shift spreading gradually through a language.[2]

1.0. I will first catalogue the nasal to vowel shifts known to me. There are undoubtedly numerous other unreported and undetected instances throughout Interior Salish.

1.1. The most pervasive shifts appear in Eastern Shuswap dialects (Kuipers 1982:7-8).[3] This fact was apparent by comparing Gibson's work on Eastern Shuswap (Gibson 1973) and Kuipers' work on Western Shuswap (Kuipers 1974), but Kuipers has more recently spelled out this development explicity:

> "Wherever WS has unstressed em, em̓, en, en̓, ES replaces these vowels (in the case of em̓, en̓ by vowel + 7). In part of the cases, this unstressed vowel is the same as the stressed vowel in words like nes, kellés (stress is not written in one-syllable words like nes), and in ES this vowel is written "a": nas, kellás (the WS vowel "a" is written "ah" in ES). The rules by which a computer could convert WS words onto ES (Enderby) ones are the following:
>
> A. Unstressed em, em̓
>
> (1) remain unchanged after p, p̓, m, m̓,
>
> (2) become u, u7 after w (and the w is then dropped in the spelling),
>
> (3) become a, a7 in all other cases.
>
> B. Unstressed en, en̓
>
> (1) remain unchanged after t, t̓, ll, n, n̓, l, l̓,
>
> (2) become i, i7 after ts, ts̓, s, y, y̓,
>
> (become a, a7 in all other cases.
>
> Examples (the WS/ES words are given separated by "/"):
>
> A1: t̓úpem/t̓úpem, ép̓em/áp̓em.
>
> A2: plúk̓wem/plúku, kwemtús/kutús, púcwem/púcu, yéwem/

yáwu, qwém̓qwem̓t/qwám̓qut, q̓wempép/q̓upáp, tsecllúq̓wem̓/tsecllúq̓u?.

A3: st̓emkélt/st̓akált, skem̓cís/ska7cís, stš̓emq̓ín/stš̓aq̓ín, q̓íqtš̓em̓t/q̓íqtš̓a7t, sem̓7é7em̓/sa7á7a, sllwélem̓t/sllwálat, tsq̓élnem̓/tsq̓álna.

B1: sq̓lélten/sq̓lálten, mét̓ens/mát̓ens, llentés/llentás, tkllém̓ens/tkllám̓ens, súlens/súlens,

B2: tsentés/tsitás, spétš̓en/spátš̓i, sekúsem̓t/sekúsi7t, scúyent/scúyit.

B3: penhén/palhán, sképq̓en/skápq̓a, stem̓túmen/statúma, qwéq̓wem̓t/qwáq̓wa7t, t̓úpens/t̓úpas, estp̓em̓llexw/estp̓a7llaxw, sícwens/sícwas, scencécenc/scacácac.

Note 1. Not all ES dialects follow exactly the same rules as that of Enderby. Elsewhere em, em̓, en, en̓ may be preserved under other conditions than those of A1 and B1; on the other hand, there are dialects where rule B2 does not hold and en, en̓ become i, i7 also after other consonants than those mentioned under B2.

Note 2. The Enderby spelling leaves out as many unstressed e's as possible; hence it is preferred to write t̓upm, ap̓a, tscllúq̓u, sq̓laltn, mat̓ns, llntas, tkllam̓ns, sulns." (Kuipers 1982:8)

Western Shuswap is not devoid of such shifts, but instances known to me are limited to two suffixes and one lexical item, all to be considered below.

1.2. Spokane-Kalispel regularly shifts n to i (and n̓ to i?) between another consonant and s (and sometimes before i or š); this shift most frequently affects suffixes, but sometimes roots and one prefix. Since the most common s that triggers this shift is third person transitive subject, there is usually regular morphophonemic alternation between forms with n and forms with i.

This particular alternation has been well described by Carlson (1976), although I disagree with him about the sequence of events that brought it about, as will be shown below. Examples of these shifts in Spokane are //nís̓-n-t-es// nís̓is 'he cut it', //nís̓-nú-n-t-es// nc̓núys 'he got it cut', //s-čuw/axn-s// sčəwáx̌is 'his arm'.

1.3. Thompson too has a regular alternation between n and a vowel, this time e: "Unglottalized nasals...are vocalized to /e/ before homorganic obstruents in primary forms: //qéck:-mp > qéckmp// qéckep you people's older brother, //sələk:-n-t-es > səlkntés// səlketés he whirls her around...." And further, "final syllabic //n// is also vocalized after another //n//: //kíc:-n-t-en > kícntn > kícnn// kícne I visit him, go to where he is" (Thompson and Thompson, forthcoming:117-118). Since these nasals are often common inflectional suffixes such as 'control' or '1st sg. subject', the process is quite common in Thompson words.

1.4. I have shown that Columbian alternates the two variable-stress suffixes -míx 'non-perfective' and -míx 'people' with unstressed nasalless forms -əxʷ. The Okanagan and Spokane-Kalispel cognates of 'non-perfective' also alternate stressed forms with a nasal with unstressed forms without: Okanagan -míx/-a?x or -x; Spokane-Kalispel -mí/-i. In one of the unstressed Okanagan forms, the a derives from m, and in the other the nasal (or its reflex) is lost altogether. The Spokane-Kalispel form can be explained similarly: post-tonic matter is regularly lost, hence the loss of a final consonant; when stress shifts from this

suffix, the vowel is lost and the nasal becomes i, just as in 1.2 above. I find no evidence that the Coeur d'Alene cognate -mš (or -m̓š) ever loses its vowel. This appears to be a weak suffix in Coeur d'Alene, and the absence of a vowel has not triggered a shift in the nasal. If Thompson and Lillooet -m̓íx are cognate, again no nasal-vowel alternation occurs, this time because they appear to be strong (stress-retentive) suffixes.

The other Columbian -míx also has cognates, but I find no examples of nasal-vowel alternation among them: Okanagan -míx, Coeur d'Alene -mš, Shuswap -míx or -mx, and Lillooet -məx.

1.5. Columbian has another instance of m alternating with a vowel in the inflectional system, this time with u. In causative or imperfective forms, the usual first singular object is -m. But when the subject is second singular -xʷ, the first singular object may be either u or m (most speakers seem to prefer u). The only cognate I find for this form of the first singular object is in Coeur d'Alene, and there m is retained before second singular -exʷ.

1.6. Other examples of vowels developed from nasals involve individual lexical items or affixes. The Columbian word for 'leggings, trousers' may be either sx̣á̓luxn or sx̣á̓mxn. I have the second form from only one speaker, but it is the form recorded by Curtis (1911). The Spokane-Kalispel cognate also has a vowel: sx̣é̓lišn. Okanagan again loses the segment entirely: sx̣íɬxn. Coeur d'Alene sx̣íl̓tumšn and Shuswap sx̣é̓mxn retain the nasal; the u in Coeur d'Alene is unexplained, but if old might help to

explain the Columbian form with u. Lillooet has a related form xəɬxíxɬ, but without the endings and its own reduplications.

1.7. Columbian also has two alternants for 'index finger', both acceptable to all speakers: čúq̓ʷmn and čúq̓ʷma?. The final a? of the second form derives from *n̓, the glottalization perhaps for 'diminutive'. The only cognate I have located for this form is Methow čáq̓ʷuma?, showing the shift.

1.8. Comparison between languages shows that the lexical suffix for 'earth, land' has a nasal-to-vowel shift in Columbian -úl̓əxʷ, Okanagan -úla?xʷ, Spokane-Kalispel -úle?xʷ, and Shuswap -úl̓əxʷ. The other languages retain a nasal: Coeur d'Alene -úl̓mxʷ, Thompson -úym̓xʷ, and Lillooet -úlm̓əxʷ.

1.9. Comparison with non-Interior Salishan languages shows that all seven have shifted all instances of final -n̓ to -V?: Columbian and Okanagan -a?, elsewhere -e?. It is not clear that all instances of this -V? are a separate (or the same) morpheme, but many are, and the suffix is cognate with, for example, Upper Chehalis -n̓ 'implement, place' (as in ɬánɬčn̓ 'a cinch', q̓áy̓stqn̓ 'kindling', q̓ʷá·nχn̓ 'drying rack').

1.10. My final examples involve the element pn-, which has to do with time. It occurs as in Columbian pan?ístkʷ 'winter', pan?ítqps 'spring', and pan̓ká? 'when?' with a nasal and a vowel that is probably an infix. Such forms are common throughout Interior Salish: Coeur d'Alene pín̓če? 'when?', Shuswap pnhé?e 'when?'. Columbian has one form in which a variant with glottalization (i.e. pn̓-) shifts the nasal to a vowel: pa?ṣç̣áqʷ

'summer'. I suggest that at least some of the following forms also derive their first vowels from nasals, and that they begin with this morpheme pn-: Spokane-Kalispel spi?scé? 'yesterday' and pistém 'when?', Coeur d'Alene ?aspá?laqi 'yesterday' (I am not certain this is the correct transcription of this form), Shuswap pəχyéwt 'yesterday', and Thompson spi?x̣éwt 'yesterday' and pi?sté? 'when?'. Some of these forms are problematic, as will be seen below.

2.0. Several questions can now be asked. Do m, n, m̓, and n̓ change in different ways, or do they all develop the same way? Did each language change nasals independently, or is the shift Proto-Interior Salishan? How does one account for all the vowels that turn up as reflexes of the nasals? My answer to the first question is that the initial change was the same for all nasals and in all languages, except that Lillooet and Coeur d'Alene shifted very few nasals. Both languages show -e? from *-n̓, and the Coeur d'Alene word for 'yesterday' (1.10 above) may be another example. Carlson 1974 cites another possible Coeur d'Alene example, nc̓ámqiɨx^{w} 'ridgepole' (-qin 'head, top', -iɨx^{w} 'house'), but it is not entirely clear that n is the source of this i.

The following table shows the vowel reflexes of nasals attested in the examples above.[4]

PIS	Cm	Ok	Ka	Cr	WSh	ESh	Th	Li
*m	ə	a?	i			a		
	u	Ø				u		
*m̓	ʾə	ʾa	e?		ʾə	a?		
						u?		
*n			i			i	e	
						a		
					ə	ə		
*n̓	a?	a?	e?	e?	e?	e?	e?	e?
			i?	a?		i?	i?	
						a?		

At first glance, no simple explanation for this diversity seems available, even if each nasal is considered individually. But if these developments are compared with vowel developments in Interior Salish, some interesting parallels can be observed.[5]

PIS	Cm	Ok	Ka	Cr	Sh	Th	Li
*ə	ə	a	i,a	e	e	ə	ə
*ə/__Q	ə	a	a	a	a	ə	ə
*a	a	i	e	i	e	e	e
*a/__Q	a	a	a	a	a	e,a	a

(Kinkade, forthcoming)

The majority of the reflexes of nasals are parallel to the reflexes of PIS *ə, and of those that are not, nearly all can be accounted for. Taken language by language, the following are my proposed explanations.

2.1. The Columbian u reflex of *m in sx̣áu̓xn 'trousers,

leggings' and in the first object suffix retains the labialization of the *m̓. This is not a consistent retention (note -əxʷ 'non-perfective' or 'people' and -úl̓əxʷ 'earth, land'), but note that this same labialization from *n̓ causes labialization of the final x of -nís → -əxʷ. Furthermore the ə of both -əxʷ and -úl̓əxʷ is phonetically somewhat rounded.

The a? reflex of *-ɬ̓ is automatic from ə. In Columbian, as in Thompson, ə is always lowered to a before ?. This may well be an old rule in Interior Salish, and could account for all the developments of this particular PIS *-ɬ̓ suffix. The Coeur d'Alene and Okanagan reflexes can equally well derive from *ə?, however. Since this suffix is the only one that shows vocalization of an original nasal in all Interior Salish, it may represent an earlier shift than the others, and hence has a slightly different development.

2.2. The Okanagan reflexes are precisely what is expected from PIS *ə. The addition of ? in the non-perfective suffix may be another morpheme (Mattina 1973:86 suggests that it is 'diminutive'). The complete loss of a reflex in sx̓íl̓xn 'leggings' is simply a further development.

2.3. Spokane-Kalispel developments to i are also expected. However, the e in -úle?xʷ 'ground, earth' is unexpected, and may represent an earlier shift parallel to *-ɬ̓ to -e?. Alternatively, the developments of ɬ̓ to i? in synchronic morphophonemic alternations may entail analogy, disrupting the earlier pattern of *ə? to e?. Note that the instances of n to y shifts in Spokane

(Carlson 1976) are simply a further development of i in a non-syllabic position; these particular changes occur after the suffix -nú 'success', and either extend the environment in which Spokane shifts n to a vowel or reflect an earlier stage of the suffix as *-nə́w.

2.4. The Coeur d'Alene developments can only be via *ə, since only this vowel developed to e in this language. The one instance cited of a? occurs in a word with a uvular consonant following, hence the lowering is automatic.

2.5. The developments in Eastern Shuswap are all automatic, and the variants with u or i are phonologically conditioned. For the most part, e and a do not contrast in Shuswap, lowering to a being explainable either synchronically or historically, and the difference can safely be ignored here. The developments of *ɬ̓ may be explained if *-ɬ̓ is again allowed an earlier, regular development to -e?. But Shuswap does show two interesting and important archaisms: the retention of ə in -úl̓əxʷ 'earth, land' and in pəχyéwt 'yesterday'. Gibson (1973) cites the first of these as -úl̓uxʷ for the dialect he studied, showing rounding either from the original m̓ or from the following xʷ.

2.6. The Thompson developments do not fit my theory that nasals first changed to *ə, unless Thompson simply disallows non-epenthetic unstressed ə's, and lowered them all to e, following the development of *-ɬ̓ to -e?. This still leaves the instances of *pn̓- to pi?- unexplained, and calls this whole etymology of *pn- into question for all the languages.

2.7. The one shift in Lillooet is *-n̓ to -e?, and that has already been noted as a regular development.

3. Thus it is possible to explain the vocalization of nasals in Interior Salish in a fairly neat, consistent way: all the languages (or their proto-language) shifted to *ə at least some nasals between consonants (or in word-final position after a consonant; hence these nasals are all phonetically syllabic). This *ə then fell together with PIS *ə, and the two developed in identical ways. Lillooet and Coeur d'Alene were little affected by this development, however, suggesting that it began in the central area of Interior Salish and scarcely reached these two peripheral languages.

It may also be desirable from a theoretical point of view to explain the development of nasals in this way, rather than having m and n develop differently. One might, for example, want to suggest that *n developed to *a, thus explaining the Thompson e and several instances of e?. But *m surely has to develop to *ə, at least in many cases. This would be anomalous if looked at through markedness theory. Although markedness is treated in different ways, and different criteria have been used to define relative markedness, n in Salish must be considered more marked than m at least on grounds of frequency (and this would agree with usage in other languages). And although a is often (cross-linguistically) the least marked vowel, several reasons suggest that ə is the least marked vowel in Salish: it is the vowel with which other vowels most commonly enter into an ablaut

partnership, it is the vowel that weak roots get when stressed (in Thompson and Columbian, and in PIS), it is the vowel others reduce to (when retained at all), and it is the epenthetic vowel.[6]

I do not expect this to be the last word on this question. As further evidence accrues for the shift of nasals to vowels in Interior Salish, a better explanation may become available. In the meantime additional examples need to be found.

FOOTNOTES

1. Research on Salish has been made possible by grants from the National Science Foundation, the American Philosophical Society Library, The University of Kansas, and the University of British Columbia.

2. See the discussion of this subject in Labov 1981.

3. These have elsewhere been called Southern Shuswap, but Kuipers suggests that Eastern and Western are more suitable designations. I have not retranscribed forms cited just below from Kuipers' "practical" orthography.

4. Abbreviations used are PIS Proto-Interior Salish, Cm Columbian, Ok Okanagan-Colville, Ka Kalispel-Spokane, WSh Western Shuswap, ESh Eastern Shuswap, Th Thompson, Li Lillooet.

5. Q represents any uvular or pharyngeal consonant or r (or l derived from *r), all of which cause vowel-lowering.

6. I thank Patricia Shaw for calling my attention to this.

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OKANAGAN COMMUNICATION AND LANGUAGE[1]

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We take language for granted. All physically able people, regardless of their educational backgrounds speak a language, without special conscious effort. For purposes of everyday communication words flow out of our mouths with seeming ease. How do communication and language happen?

In this brief essay we discuss, first in general, and then with specific reference to Okanagan, two aspects of language:

(1) the communicative norms that regulate linguistic use in society;

(2) the grammatical norms that underlie the linguistic utterances.

Let us begin with an analogy. Think of communication as transportation, and of language as a motor vehicle. Transportation is regulated by norms such as Drive on the right side of the road, Give the right of way to pedestrians, and so on, and involves the moving of people and cargo for all kinds of reasons: work, competition, vacation, racial integration, and so on. Language similarly is used for varied reasons: trade, study, poetry, warnings, and so on. Just as vehicles have engines with complex mechanisms and functions, most of which we needn't understand in order to drive, languages, similarly, have complex grammatical requirements which we needn't be aware of in order to speak. The analogy goes further: some people are great drivers, and others are great poets and orators; some people are great mechanics, and others are great linguists. Finally, we are all entitled to our preferences in engines and body styles, as we are in languages and linguistic expressions.

Let us return to communication. Communicative norms are learned after extended exposure to their usage. We know, for example, if needing a direction to a landmark and encountering an elderly woman, not to say to her: "Tell me, old woman, where is the Coliseum." Addressing the person as "old woman", while

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