

Sources of paradigm uniformity in Káínai Blackfoot nouns

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There is a pattern of consonant deletion (‘non-permanent consonants’; Frantz 2017: 12) at the right edge of some noun stems in Blackfoot (Algonquian). Some speakers have innovated paradigm uniformity without deletion for some stems. Logically, paradigm uniformity could arise if speakers infer (a) **new lexical representations** for individual stems or (b) **new phonological grammars** which would affect all stems of a certain phonological shape. I test these hypotheses on a targeted wordlist recorded with seven speakers of the Káínai Blackfoot dialect. The results have implications for theories of paradigm leveling (Antilla 1977; Kiparsky 1978).

Corpus study The final *m*, *n*, or *s* on some nouns deletes before all suffixes except the singular suffix. In (1a) the stem-final *n* occurs after a short vowel and is present before the singular suffix *-i* but absent before the plural suffix *-istsi*. Other stems end in *n* in both contexts if the stem-final vowel is long, (1b) or the stem-final consonant is long, (1c). (FR = Frantz & Russell 2017).

(1)	<i>Singular</i>	<i>Gloss</i>	<i>Plural</i>	<i>Shape</i>	<i>Gloss</i>	
a.	maotoyóópan-i	‘rye grass’	maotoyóópa-istsi	VC	‘rye grasses’	[FR 146]
b.	ponopaan-i	‘quiver’	o-nnopáán-istsi	VVC	‘his quivers’	[FR 146]
c.	mottoksíinnann-i	‘thigh’	n-ottoksíinnann-istsi	VCC	‘my thighs’	[FR 153]

A corpus study of the dictionary (Frantz & Russell 2017) shows that deletion is phonologically conditioned by stem shape. For stems with a final VC, 90.358% (328/363) exhibit deletion before the plural, but deletion is rare for VVC stems (4.717%; 10/212) and VCC stems (2.439%; 2/82).

Analysis The final short vowel of the singular suffix is devoiced in Blackfoot (Frantz 2017; Windsor 2017) and speakers epenthesize a glottal stop between sonorants and voiceless vowels, suggesting that non-permanent consonants are parsed to a coda position before the singular suffix. I hypothesize that deletion occurs to *avoid* paradigm non-uniformity in the plural, where stem-final consonants would be parsed to syllable onset position.

Using the Optimality Theory framework (McCarthy & Prince 1993), I posit a constraint (‘OO-Coda’) requiring correspondence of syllable position across outputs (Benua 1997; Burzio 1998). The constraint ranking in **Table 1** captures consonant deletion in VC stems. High-ranked Max- μ prevents deletion in VVC and VCC stems (where geminate consonants are moraic; Hayes 1989).

Table 1: Analysis of non-permanent consonants and paradigm uniformity

Output: [mɔ:.to.jó.pɛn]	DEP- μ	MAX- μ	OO-CODA	MAX
Input: /mɔ:tojopan-i ^s tsi/				
mɔ:.to.jó.pa.ni. ^s tsi			*!	
^{EP} mɔ:.to.jó.pɛ:. ^s tsi				*
Output: [po.no.pá:n]	DEP- μ	MAX- μ	OO-CODA	MAX
Input: /ponopa:n-i ^s tsi/				
^{EP} po.no.pá:.ni. ^s tsi			*	
po.no.pé:. ^s tsi		*!		*

Experiment A wordlist was recorded with seven speakers of Káínai Blackfoot (ages: 50–70). It contained 52 noun stems ending in *m*, *n*, or *s* across the three stem shapes above and recorded in singular and plural contexts. If speakers reanalyzed VC stems as VVC or VCC stems, then only reanalyzed stems will have permanent consonants, and the final V or C should be relatively longer than short segments. If speakers induced a grammar with Max \gg OO-Coda, *all* consonants should be permanent and the final V and C should remain short.

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