

Blackfoot Pitch Accent: Insights from Morpho-Phonology

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Prominence in Blackfoot

Blackfoot is a Plains Algonquian language spoken by about 4,315 speakers [5] in southern Alberta and northern Montana. It has a system of syllabic prominence primarily correlated with an increase in F_0 [7], as well as increased duration and amplitude. This prominence has been referred to in the literature as stress [8], pitch accent [3, 2, 4], or tone [6].

Blackfoot Nominals

Many Blackfoot noun stems have two allomorphs. One usually occurs word-initially, while the other reflects phonotactically-motivated vowel epenthesis, initial change, or a length alternation. Some roots are suppletive. All Blackfoot forms follow Frantz's orthographic conventions [1, 3].

α	β	Gloss
kiááyo	-ohkiááyo	'bear'
piítaa	-ipiítaa	'eagle'
akkssin	-okkssin	'bed'
ponoka	-innoka	'elk'

Research Questions

How do prefixes affect the prominence patterns of Blackfoot nominals? What can paradigmatic forms tell us about their morpho-phonology?

Our Approach

We elicited both bare nouns and nouns with the following prefixes, using English as a prompt.

omahk- 'big'	kaak- 'only, just'
sik- 'black'	ksikk- 'white'
pok- 'small, young'	inno- 'long'

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Findings

① Two Stem Classes

Class 1: Bears no lexical accent.
Class 2: One syllable is associated with an accent.

Prefixes like *pok-* 'small' act as a noun class litmus test: accented nouns keep their lexical accent and unaccented nouns are accented as determined by the prefix.

	<i>Accented</i>	
Root	'small' + Root	Gloss
ipiítaa	poks-ipiítaa	'eagle'
apáni	pok-apáni	'butterfly'
omitáikoan	pok-omitáikoan	'puppy'

	<i>Unaccented</i>	
Root	'small' + Root	Gloss
aakii	pok-ááki	'woman'
omitaa	pok-ómitaa	'dog'
ohpokon	pók-ohpokon	'ball'

All bare forms of nominals are pronounced with at least one accent. Pre-pausally, underlyingly unaccented stems are pronounced with a pitch fall across the last syllable of the word.

aakii	→ aakí	'woman'
pokon	→ pokón	'ball'
imitaa	→ imitáa	'dog'

② Three Prefix Classes

Class 1: Accents the compound's *first syllable*.
Class 2: Accents the compound's *second syllable*.
Class 3: Accents the compound's *third syllable*.

The prominence patterns of compounds containing unaccented roots are determined by the prefix. Different prefixes cause accent to fall on either the first, second, or third syllable of the entire word.

	<i>Class 1</i>	
Prefix	Prefix + Root	Gloss
omahk-	ómahk-omitaa	'big dog'

	<i>Class 2</i>	
Prefix	Prefix + Root	Gloss
pok-	pok-ómitaa	'small dog'
inno-	innó-(ó)mitaa	'long dog'

	<i>Class 3</i>	
Prefix	Prefix + Root	Gloss
kaak-	kaak-omítaa	'just a dog'
ksikk-	ksikk-omítaa	'white dog'

These prefixes only bring about accents on their associated compounds when added to **unaccented roots**. Accented roots generally keep their lexical accent and are not prosodically affected by prefixes.

③ Syllable Weight

Post-peninitial accent is attracted to the second syllable when it is heavy.

Prefixes which normally accent the third syllable accent the second syllable if it is heavy.

Root	'just' + Root	Gloss
aakii	kaa.káa.kii	'just a woman'
i'towaaki	kaa.kí'.to.waa.ki	'just a chicken'

④ Voiceless Syllables

Voiceless syllables cannot carry pitch. If accent is predicted to fall on a voiceless syllable, accent shifts one syllable to the left.

The prefix *pok-* normally accents the second syllable. When the second syllable is voiceless, accent shifts left to fall on the prefix itself.

Root	'small' + Root	Gloss
ohpoos	pó.koh.poos	'small cat'
ohpokon	pó.koh.po.kon	'small ball'
ohmokoyi	pó.koh.mo.ko.yi	'small wolf'

References

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