Perceptual salience of Blackfoot syllabic /s/
Andrei Anghelescu
Department of Linguistics, University of British Columbia

Main Claims
Long /s/ is perceptually similar to vowels in that it is syllabic.
• Syllabic /s/ has a longer duration than non-syllabic /s/ (Derrick, 2006b).
• Not all long /s/ are syllabic (Derrick, 2006a); specifically, only those followed by consonants are syllabic.

Historical Account
According to Frantz (1997), syllabic /s/ may arise from historical sequences of /ix/. Thus, the fact that /s/ can be a nucleus is explained by virtue of it historically containing a vowel.

Experiment
The consultant was asked to tap along to the rhythm of an utterance.
• With normal speed recordings of target utterances.
• With artificially slowed recording of target utterances.
• While producing target utterances.

Hypotheses
Tapping is correlated to syllabification. Syllable nuclei are tap targets.
• Long vowels will always be tapped.
• Long /s/ followed by a consonant will be tapped.

Results

Discussion
Figure 1 illustrates a long /s/ followed by a consonant which is aligned with a tap. This exemplifies the case which Derrick (2006b) claimed to be syllabic. Compare this to the /s/ in Figure 2, which is followed by a vowel. This suggests that syllabicity of /s/ is not solely derivable from context. Note that the final /s/ in the second utterance is followed by a voiceless vowel.

Slowed speech & Production
• When tapping to slowed recordings, the patterns remained largely the same.
• When tapping while producing the utterance, taps were more frequent (ie. every vowel was tapped) but no taps were removed.

Conclusion
• Long vowels are usually tapped, but not unambiguously.
• Long /s/ followed by consonants was tapped, but so were some long /s/ followed by vowels, both realized vowels and voiceless vowels.

References
Thank you to our consultant Beatrice Bullshields and to Gunnar Ólafur Hansson for advising.

Target Utterances
Utterances were chosen from a recording of a creation story (Bullshields et al., 2008). Utterances include long and short vowels and long and short /s/.

(1) stam- ohkatt- ssppomoo- yi it- aaniist- a’psi- wa’si ko’komikí’somm- yi
just- also- go.to.heaven.AI- OBV LOC- MANNER- be.AI- become.AI moon- OBV
‘The woman went up into the heavens and she became the moon.’

(2) stam- maan- ist- a’psi- wa’si naat’o si
just- new- MANNER- be.AI- become.AI sun
‘He became the sun’