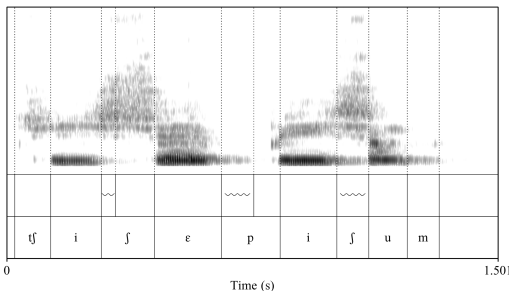


Mixed Obstruent behaviour in Intervocalic Voicing in Innu-aimûn: Contrast and debuccalisation

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Background: Innu-aimûn (I-A) is described as having intervocalic voicing of obstruents. In their description of Sheshatshiu I-A, Clarke & MacKenzie (2010:1-2) (C&M) tacitly refer to the voiced sounds [b, d, g, g^w, dʒ, ʒ] as allophones of /p, t, k, k^w, tʃ, ʃ/. Unlike /ʃ/, the fricatives /s/ and /h/ are never voiced. This is a case of ‘mixed obstruent behaviour’ in phonological voicing processes. This is particularly interesting given the ‘contrast-only’ model of phonology, whereby phonological features are supposedly only ‘active’ if they are contrastive (Dresher 2009). I-A, typical of Algonquian does not contrast for [±voice]. In I-A, alternating stops are phonemically voiceless and, although the non-alternating /s/ and /h/ lack their voiced counterparts (* /z/, * /ʒ/), so does /ʃ/ (* /ʒ/), yet it alternates.

Empirical picture: We performed a preliminary acoustic phonetic study. The data come from the online dictionary: one male Sheshatshiu speaker and one female Mashuau speaker (Ambroise et al. 2023). A total of 66 tokens of high frequency words were selected and measured manually in Praat. Contrary to the symbols used to transcribe I-A, we found that ‘voicing’ of obstruents was not categorical. The results indicate partial voicing that is variable even within speakers: *tukwatshi-pishim*^u [tuḱwaʃi-piʃun] ‘November’.



The variable phonetics of other obstruents aside, C&M turn out to be structurally correct. The sounds /s, h/ are categorically voiceless, except /h/ when pronounced very short (e.g. one token *uhu* ‘owl’). Moreover, the process shows phonological sensitivity. [tʃ] /tʃ+ʃ/ that results from syncope is also categorically unvoiced: *mitshishu* [mitʃu] ‘eagle’.

Analysis: The ‘mixed behaviour’ of obstruents in phonological voicing processes has been ascribed to underlying featural differences generated by the *Variable Hierarchy* and the *Successive Division Algorithm* (Dresher 2009). Turkish, unlike Russian, has non-alternating obstruents: /t^h, s/ that resist *Intervocalic Voicing*. However, unlike Russian, Turkish unambiguously needs to contrast spread glottis [±sg]: {z, d, t, t^h, s}. This allows Turkish to cut its obstruents according to the hierarchy [±sg > ±voice > ±cont]; splitting off the non-alternating [+sg] consonants: {t^h, s}. In Turkish, the crucial [±voice] cut is ‘delayed’, it only applies to the [-sg] set (Nevins 2015). This analysis can be successfully imported to I-A. Though there are no spread glottis stops, I-A does have /h/, that is unambiguously [+sg]. We therefore can propose the hierarchy [±sg > ±cont] making the natural class {s, h} (cf. Vaux 1998), excluding /ʃ/ and other obstruents. Then, voicing is blocked in obstruent-clusters, geminates and [+sg] environments. Interestingly, this analysis makes a correct prediction regarding some unexpected phonological behaviour of /ʃ/ in I-A.

Diachronic Implications: Since intervocalic voicing is widespread in Algonquian and Proto-Algonquian (PA) had **/h/, perhaps [±sg] has been crucial in organizing the obstruent hierarchy of Algonquian since PA. The hierarchy might explain the surprising retention of /h/ (an otherwise weak sound) in most of the daughter languages (Oxford 2023). Even where it has been lost, another sound has stepped into that phonemic space: Mi’kmaq /h/ → ∅, /k/ → χ (allophone [h]) & Blackfoot /h/ → [x] (Oxford 2023).

References: Ambroise, J.; Junker, M.-O.; MacKenzie, M.; Mollen, Y. 2023. *Online Innu Dictionary*. Dresher, E. 2009. *The Contrastive Hierarchy in Phonology*. CUP. Nevins, A. 2015. Triumphs and limits of the Contrastivity-Only Hypothesis. *Linguistic Variation*, 15(1):41-68. Vaux, B. 1998. The laryngeal specification of fricatives. *LI*, 29:497–511. Oxford, W. 2023. *Consonant inventories from Proto-Algonquian to the daughter languages*. [ms.], University of Manitoba.