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## Phonetic Shortening in Labrador Inuttut

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## Introduction

We will report on an optional process of word shortening in Labrador Inuttut that has not been mentioned in the literature. Here we refer to Linguistics with a capital L, as discussed today by Wesley Leonard. The small 1 linguistics already knows about this.

This shortening takes the form of vowel deletion accompanied by consonant cluster reduction. It is interesting because it violates some well-established phonological and phonotactic constraints in the language.

We posit that shortening began as a late phonetic process that applied in a post-phonological component in which these constraints no longer held. But the current status of shortening is less clear, for reasons we will discuss.

## Introduction

As we will see, shortening creates consonant clusters that are not permitted by the regular phonology of the language.

However, shortening also has affinities with certain processes in other dialects, suggesting that it may have deeper roots in the language.

We will also discuss indications that at least some shortened forms have been lexicalized.

The purpose of this talk is to bring this phenomenon to the attention of other linguists so it can be further explored.

## Introduction

Our data comes from:
$>$ a) shortened words in the 1976 Labrador dictionary by Rose Jeddore;
$>$ b) field work by one of us (Alana Johns) using Zoom during Covid;
$>$ c) field work in person (by AJ), including audio recordings, in November 2023 in Nunatsiavut.

It turns out that c) has caused us to change our story a bit from our abstract.
Thanks to anonymous reviewers of our abstract for useful suggestions!

## An example of shortening

Consider first the standard unshortened forms in (1a) for 'home-' as they appear in Jeddore (1976).

As explained in Jeddore on page v, in tables prepared by Larry Smith, $<n g>$ is IPA [ y ] and $<\mathrm{qq}>$ is [ xx$]$ or [ xx$]$.
(1) a. Standard forms (Jeddore 1976: 18)

ANGIQQAK 'home'; angiqqavaa 'Has he gone home? Did he come home?'
IPA: aŋixxak ajixxavaa

## An example of shortening

The final $k$ in apixxak is a citation morpheme used in bound stems but plays no role in the phonology (Johns, to appear).

In the second form, $-v a a$ is the third person singular interrogative inflection.
(1) a. Standard forms (Jeddore 1976: 18)

ANGIQQAK 'home'; angiqqavaa 'Has he gone home? Did he come home?'
IPA: aŋixxak ajixxavaa
аңіхха- $k$ апіхха- vaa
go.home-K go.home-INTERR.3SG

## An example of shortening

In addition to the forms in (1a), the shortened forms in (1b) also appear in Jeddore's (1976) Labrador dictionary. (Labrador Inuttut words are polysynthetic and contain complex morphology.)
(1) a. Standard forms (Jeddore 1976: 18)

ANGIQQAK 'home'; angiqqavaa 'Has he gone home? Did he come home?'
b. Shortened forms (Jeddore 1976: 17)

ANGQAK 1. 'to go home (v.)' 2. 'home (n.)'. Angqami 'at home'. angqalittatuuk 'I wish we were going home.' angqaqangitukuluk 'the poor thing, she has no home.'

## An example of shortening

In IPA transcription they are as shown below. Relevant sequences are highlighted.
(1) a. Standard forms aŋixxak 'home'; aŋixxavaa 'Has he gone home? Did he come home?'
b. Shortened forms
aŋxak 1. 'to go home (v.)' 2. b. 'home (n.)'. aŋxami 'at home'. aŋxalittatuuk 'I wish we were going home.' аŋхахаŋŋitukuluk 'the poor thing, she has no home.'

## An example of shortening

The sequence $\eta i x x$ in the standard form appears as $\eta x$ in the shortened form:

The vowel $i$ is deleted and the cluster $x x$ has been simplified to $x$.
(1) a. Standard forms (Jeddore 1976) aŋixxak 'to go home'; aŋixxavaa 'Has he gone home? Did he come home?'
b. Shortened forms:
ajxak 1. 'to go home (v.)' 2. b. 'home (n.)'. ajxami 'at home'. aŋxalittatuuk 'I wish we were going home.' аŋхахаŋŋitukuluk 'the poor thing, she has no home.'

## An example of shortening

Compare also (1c) from Nunavik (Northern Québec), a closely related but different dialect in Schneider's (1985) dictionary.

The forms are cited as they appear in the dictionary. As in most dialects, only the unshortened form of this stem with the vowel $i$ is cited.

```
(1) a. Standard forms (Jeddore 1976)
    a\etaixxak 'to go home'; a\etaixxavaa 'Has he gone home? Did he come home?'
    b. Shortened forms
    a\etaxak 1. 'to go home (v.)' 2. b. 'home (n.)'. a\etaxami 'at home'.
```

c. Schneider (1985: 29)
angiqrajuq (1) 'he is at home'. (2) 'He goes home'.

## An example of shortening

Here are the same forms in IPA transcription.

Nunavik вь corresponds to Labrador $x x$.

```
(1) a. Standard forms (Jeddore 1976)
    a\etaixxak 'to go home'; a\etaixxavaa 'Has he gone home? Did he come home?'
    b. Shortened forms
    a\etaxak 1. 'to go home (v.)' 2. b. 'home (n.)'. a\etaxami 'at home'.
```

c. Schneider (1985: 29)

апіввајиq 'He is at home'; 'He arrives home'.

## Comment by Jeddore (1976)

Jeddore (1976: iii) explains in the preface:

> "We have tried to cover all dialects, although most of our informants were Nain speakers. In some cases, we have indicated where words are pronounced differently by different generations, e.g. aulsak (young speaker), aulasak (older speaker)."

This comment suggests that shortening is a recent phenomenon confined to young speakers.

## Another shortened form in Jeddore (1976)

Here is the full entry of the mentioned form. It is interesting that although the shortened form is in parentheses, all the examples use the shortened form.

The entry immediately following (2a) in the dictionary is another entry (2b) involving a noun derived from (2a).
(2) Jeddore (176: 28)
a. AULASAK (AULSAK) 'to jig (v.)'. Aulsajut imappimi ‘They are jigging for fish in deep water (the open sea)'. Aulsagialautta. 'Let's go jigging'.
b. AULSAUTIK 'jigger (n.)'. Aulsautiga nitsivuk 'My jigger is caught on something'.

## Another shortened form in Jeddore (1976)

Notice that this second entry lists only the shortened form, with the cluster $l s$.

The cluster $l s$ is not found in regular words.
(2) Jeddore (176: 28)
a. AULASAK (AULSAK) 'to jig (v.)'. Aulsajut imappimi "They are jigging for fish in deep water (the open sea)'. Aulsagialautta. 'Let's go jigging'.
b. AULSAUTIK 'jigger (n.)’. Aulsautiga nitsivuk 'My jigger is caught on something'.

## Another shortened form in Jeddore (1976)

Many of our consultants have both regular and shortened forms of this stem, with a preference for the shortened form.
One of them, LT, has a $u$ in the standard (long) form in (2a) varying with the $a$.
The morphology of (b) is shown in (c) : the $C$ in the near future indicative -niaCrepresents an abstract consonant that assimilates to a following consonant.
(2) a. Standard form
aulasak 'to jig for fish' (LT also has aulusak)
b. Shortened form with this stem aulsayianiakxuyut 'We are going jigging for fish'
c. aulsa- yia- niaC- xuzut
jig.for.fish-go.to.do.X-NEAR.FUT-IND.1PL

## More examples of shortened forms

Another example is 'maternal grandmother'; it appears in Schneider as (3a).

Jeddore lists only the shortened form (3b), which we have also collected from our consultants. Our consultants also knew the long form.
(3) a. Standard form in Nunavik (Schneider 1985: 27) anaanatsiaq 'maternal grandmother, maternal great-aunt'
b. Shortened form (Jeddore 1976: 16 and consultants) anaansiak 'grandmother on mother's side (n.)'

## More examples of shortened forms

Jeddore lists only the standard form of inillak 'to lie down' (4a).
We have collected the shortened form from our consultants.
There is a slight meaning difference between (a) as a general action and (b) as a more specific instance of that general action.
(4) a. Standard form (Jeddore 1976: 42)
inillak 'to lie down'
b. Shortened form (fieldwork)
inlak 'go to bed'

## Another Labrador dictionary

There is another dictionary of the Labrador dialect, by Andersen, Kalleo, \& Watts. It was published in 2007, 31 years after Jeddore's dictionary.

Given Jeddore's comment suggesting that shortened forms were associated with younger speakers, we might expect that Andersen et al. (2007) would have more shortened forms than Jeddore.

It is therefore interesting that Andersen et al.'s dictionary has no shortened forms at all!

Compare how some forms we have looked at appear in Andersen et al. (2007).

## Conspicuous lack of shortened forms in Andersen et al. (2007)

In (1), Jeddore has long and short forms; Andersen et al. have only the long one.
Note that Jeddore's qq and Andersen et al.'s gg are both pronounced [xx]; the difference is only in the orthographic system.

| Jeddore (1976) | Gloss | Andersen et al. (2007) |
| :--- | :--- | :--- |
| (1) angiqqak ~angqak | 'home' | angiggak |
|  |  |  |
|  |  |  |

Conspicuous lack of shortened forms in Andersen et al. (2007)
In (2), Jeddore again has long and short forms, and Andersen et al. only long.
For (3), Jeddore has only the short form, Andersen et al. give only the long one.

| Jeddore (1976) | Gloss | Andersen et al. (2007) |
| :--- | :--- | :--- |
| (1) angiqqak $\sim$ angqak | 'home' | angiggak |
| (2) aulasak $\sim$ aulsak | 'to jig for fish' | aulasak |
| (3) anaansiak | 'maternal grandmother' | anânatsiak |
|  |  |  |

## Another Labrador dictionary

The lack of shortened forms in Andersen et al.'s dictionary could be due to
$>$ conservatism on the part of the dictionary's compilers, who may use both forms but consider short forms to be a sort of slang;
$>$ it might also reflect genuine sub-dialectal differences among speakers in using shortened forms.

Our survey shows that we should not rely on printed sources in determining the prevalence of shortened forms in the speech community.

## Context for shortening

In the examples we have collected the shortening takes the form shown in (7):
A vowel, $\mathrm{V}_{\mathrm{m}}$, in a medial (non-initial and non-final) syllable deletes when it follows a single consonant, $\mathrm{C}_{1}$, and precedes a single consonant $\mathrm{C}_{2}$, as in (a).

A new cluster $\mathrm{C}_{1} \mathrm{C}_{2}$ is created.

$$
\begin{aligned}
& \text { (7) a. ... } V_{1} V_{2} C_{1} V_{m} C_{2} V_{3} \ldots \rightarrow \quad \ldots V_{1} V_{2} C_{1} C_{2} V_{3} \ldots \\
& \text { aulas a } \rightarrow \text { a uls a }
\end{aligned}
$$

## Context for shortening

Or, as in (b), a vowel, $\mathrm{V}_{\mathrm{m}}$, in a medial syllable deletes when it follows a single consonant, $\mathrm{C}_{1}$, and precedes a a consonant cluster, $\mathrm{C}_{2} \mathrm{C}_{2}$.

The original cluster is simplified and again a new cluster $\mathrm{C}_{1} \mathrm{C}_{2}$ is created.

$$
\begin{aligned}
& \text { (7) a. ... } V_{1} V_{2} C_{1} V_{m} C_{2} V_{3} \ldots \rightarrow V_{1} V_{2} C_{1} C_{2} V_{3} \ldots \\
& \text { aulas a } \rightarrow \text { a uls a } \\
& \text { b. } \ldots V_{1} C_{1} V_{m} C_{2} C_{2} V_{3} \ldots \rightarrow V_{1} C_{1} C_{2} V_{3} \ldots \\
& \text { a } \eta \mathrm{i} x \mathrm{xa} \rightarrow \text { a } \mathrm{y} \text { x a }
\end{aligned}
$$

## Labrador clusters

We argued in Dresher \& Johns (1995) that all surface clusters in Labrador (Smith 1977) are either pure geminates (e.g., $p p, l l, \eta \eta$ ) or affricated geminates (e.g., $t s$ from $/ \mathrm{ss} /, t \notin$ from / $\not \ddagger /$, and $k x$ from $/ \mathrm{xx} /$ ).

Therefore, all Labrador clusters except those created by shortening are underlying geminates $\mathrm{C}_{\mathrm{i}} \mathrm{C}_{\mathrm{i}}$.

$$
\begin{aligned}
& \text { (7) b. } V_{1} C_{1} V_{m} C_{2} C_{2} V_{3} \ldots \quad \rightarrow \quad V_{1} C_{1} C_{2} V_{3} \ldots \\
& \text { a } \eta \mathrm{i} x \times \mathrm{x} \ldots \rightarrow \text { a } \mathrm{y} \text { x } \text { a... }
\end{aligned}
$$

## Labrador clusters

We consider affricated clusters such as $t s$ (from /ss/) in (3) to be geminates.
The deletion of the medial vowel, $\mathrm{V}_{\mathrm{m}}$, would result in an overlong cluster, $n t s$, (or $n s s$, if shortening precedes affrication).

The resulting simplification of this cluster to $n s$ amounts to the degemination of the underlying geminate /ss/, or its affricated version [ts].

$$
\begin{aligned}
& \text { (3) } \ldots . \mathrm{V}_{1} \mathrm{~V}_{1} \mathrm{C}_{1} \mathrm{~V}_{\mathrm{m}} \mathrm{C}_{2} \mathrm{C}_{2} \mathrm{~V}_{3} \ldots \rightarrow \quad \rightarrow \quad . . \mathrm{V}_{1} \mathrm{~V}_{1} \mathrm{C}_{1} \mathrm{C}_{2} \mathrm{~V}_{3} \ldots \\
& \text { anaanatsiak ana ansiak }
\end{aligned}
$$

## Clusters created by shortening

The new cluster C1C2 is thus very unexpected in that it violates some important constraints of Labrador phonology.

First, the cluster [ yx ] does not follow the prevailing Labrador pattern of geminate or affricated geminate clusters.

That is, there are no regular words in Labrador that have the sequence [ yx ].

$$
\begin{aligned}
\text { (3) } \ldots \mathrm{V}_{1} \mathrm{C}_{1} \mathrm{~V}_{2} \mathrm{C}_{2} \mathrm{C}_{2} \mathrm{~V}_{3} \ldots & \rightarrow \ldots \mathrm{~V}_{1} \mathrm{C}_{1} \mathrm{C}_{2} \mathrm{~V}_{3} \ldots \\
/ \mathrm{a} \text { y } \mathrm{x} x \mathrm{x} & \rightarrow \text { a } \mathrm{y} \text { x }
\end{aligned}
$$

## Nasal-obstruent clusters

In fact, no Inuit dialect allows this sequence, which violates a constraint against nasal-obstruent clusters that holds across all Inuit dialects.

In (8), we show that nasal-obstruent clusters did exist in Proto-Inuit-Yupik (PIY), as reconstructed by Fortescue et al. (2010).
(8) a. PIY *aytur- 'big thing'
b. PIY *kumka- 'pick teeth'
c. PIY *pimci ‘dried fish’

## Nasal-obstruent clusters

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They are retained as such in Central Siberian Yupik (CSY), as shown in (8a) and (8b). CSY is related to the Inuit language but is an independent language.
(8) a. PIY *antur- 'big thing' > CSY aŋtaaq 'mature bearded seal'
b. PIY *kumka- 'pick teeth' > CSY kumkiili
c. PIY * pimci 'dried fish’

## Nasal-obstruent clusters

However, nasal-obstruent clusters have been assimilated to obstruent-obstruent clusters in all Canadian Inuit (CI) dialects:
$>$ In (8a), Proto-Inuit-Yupik * $\eta t$ is assimilated in eastern Canadian Inuit (ECI) dialects to $t t$.
$>$ In (8b), PIY * $m k$ is assimilated in western Canadian Inuit (WCI) to $p k$ or $k k$.
$>$ In (8c), PIY *mc becomes $p s$ in WCI and $t s$ (from /ss/) in ECI.
(8) a. PIY *antur- 'big thing' > CSY antaaq 'mature bearded seal' ~ ECI attuq
b. PIY *kumka- 'pick teeth' >

WCI kupkili-, kukkili
c. PIY *pimci ‘dried fish’ > WCI pipsi ~ ECI pitsik

## Nasal-obstruent clusters

These examples show that the complete absence of nasal-obstruent clusters in all Canadian Inuit dialects is not an accidental gap.

Such clusters existed in the proto-language but were turned into obstruentobstruent clusters.

Therefore, the creation of nasal-obstruent clusters by shortening is surprising: they exist nowhere else in the Labrador dialect nor within the whole language.
(8) a. PIY *aŋtur- > ECI attuq
b. PIY *kumka- > WCI kupkili-, kukkili
c. PIY * pimci > WCI pipsi ~ ECI pitsik

Labrador shortening:
(1) aŋikxak $\rightarrow$ aŋxak

## The Law of Double Consonants

Another rule that shortening potentially interacts with is the Law of Double Consonants, also known as Schneider's Law (Schneider 1972).

This rule, which applies in Labrador as well as some other dialects, simplifies a geminate that follows another geminate or mixed cluster, applying left to right.

A Labrador example from Smith (1977) is given in (9).
(9) a. nanu-nŋua-Kxaa -lluni $\rightarrow$
bear -toy -do.first-by $\begin{aligned} & \text { nanu-nŋua-xaa-lluni } \\ & \text { 'by first killing a toy bear' }\end{aligned}$

## The Law of Double Consonants

The geminate $\eta \eta$ in position 2 does not degeminate because it follows a single consonant $n$ in position 1.

The geminate $k x$ in position 3 is degeminated to $x$ because it follows the geminate $\eta \eta$ in position 2.

Now the geminate $l l$ in position 4 is retained because it follows a single consonant.


## The Law of Double Consonants

Here is another example from Smith (1977). The only difference is that the root has a geminate $t t$ in position 1.

Therefore, the geminate $\eta \eta$ in position 2 degeminates, thereby preserving the geminate $k x$ in position 3.

But now the geminate $l l$ in position 4 is degeminated.


## Shortening and the Law of Double Consonants

Looking at the two examples together shows the pattern clearly.
It would be of interest to know how shortening interacts with the Law of Double Consonants: if shortening is a late phonetic rule, we would expect it to follow the operation of the Law, and thus neither trigger nor block the Law.

We reported in our abstract that the examples that we had at the time showed that clusters created by shortening do not trigger the Law of Double Consonants.

```
    1 2 3 4
(9) a. nanu - y\etaua - xaa - lluni
    b. tuttu - yua - kxaa - luni
```


## Shortening and the Law of Double Consonants

To summarize the results of recent fieldwork, we can say that speakers generally apply the Law of Double Consonants categorically in non-shortened words.

In (11a), the cluster in position 2 remains, and in (11b) it is simplified, both according to the Law.

| (11) | Unshortened forms | Law of Dou | sonants |
| :---: | :---: | :---: | :---: |
|  | 12 <br> a. ani-kxujara 'I asked/told him to go out.' | $12$ <br> ani-kxujara | (* ani-xujara) |
|  | 12 <br> b. aulla-kxujara 'I asked/told him to leave.' | $\begin{array}{cc} 1 \quad 2 \\ \text { aulla-xujara } \end{array}$ | (* aulla-kxujara) |

## Shortening and the Law of Double Consonants

However, in unshortened words, speakers do not apply the Law of Double Consonants categorically; in such forms we find variation, as shown below.
(12) Shortened forms

$$
12
$$

$$
12
$$

a. sinsi-kxauvunga or sinsi-xauvunga
'I fell asleep'
$12 \quad 12$
b. aulsa-kxaujuk or aulsa-xaujuk
'She jigged for fish (fished)'

## Replacive affixes in Inupiaq

In our collection of shortened forms we find that many result in clusters that begin with l, n, or $\eta$ (e.g., aulsak- 'to jig for fish').

An independent process exists in some other dialects which has a passing resemblance to word shortening in that it also involves the consonants lor n (but not $\eta$ ).

Kaplan (1981: 250-254) discusses replacive suffixes in Inupiaq which create doublets, similar to our long and short forms.

Replacive suffixes are drawn from the group of truncating suffixes, that is, suffixes that cause the deletion of a stem-final consonant.

## Replacive affixes in Inupiaq

For example, the replacive suffix -liuq deletes the final stem consonant, $k$.

In addition, it deletes the last vowel of the stem, $i$, along with the affix's own initial consonant, $l$, and geminates the medial stem consonant, $m$.

Like shortening, it causes a kind of contraction of the word.

```
(13) a. /kamik - liuq - tuq/
        boot - make-3s.INTR
    b. kammi-uq - tuq 'He/she makes boots'
```


## Replacive affixes in other dialects

Replacive affixes are also found in the Utkuhiksalingmiut dialect (Briggs, Johns, \& Cook 2015) and in Kalaallisut (West Greenlandic; Rischel 1974: 251).

Rischel (p. 197) writes that
"these forms can be considered as lexicalized items ..

Labrador shortened forms seem also to be lexicalized, which is another affinity they have with replacive morphology.

## Shortened forms and lexicalization

Can any appropriate phonological context trigger shortening?
The answer is: No!
The shortened form sinsik 'to fall asleep' (14) involves the stem sinik- 'sleep' and the inceptive affix -tsi.

Can we, then, apply shortening to other words that have the same stem sinik- and another affix that begins with $t s i$ ?

```
(14) a. sini - tsi - k
    sleep-INCEPT-K
    b. sinsik 'to fall asleep'
```


## Shortened forms and lexicalization

No. An example is sinitsiaxauvunga 'I slept well', in which the stem is followed by -tsia 'well, good'.

The shortened form (b) is not possible.
It is also of note that we find -tsia in other shortened words. Thus, (b) does not occur though both the stem sinik- and the affix -tsia can occur in shortened words.

```
(15) a. sinitsiaxauvunga 'I slept well.'
        sini - tsia - xau - vunga
        sleep-well-R.PAST-IND.1s
    b. No shortened form: *sinsiaxauvunga
```


## Shortened forms and lexicalization

It is likely that
a) the individual word must allow shortening through lexicalization, and maybe
b) only certain affixes can be involved and not others.

## Compensatory lengthening?

The first consonant in the cluster $\mathrm{C}_{1} \mathrm{C}_{2}$ derived by shortening sounds long and distinct, as if it is being held.

One speaker suggested we spell it with two letters, $\mathrm{C}_{1} \mathrm{C}_{1} \mathrm{C}_{2}$ (e.g., nnl). So clusters derived by shortening should be investigated for compensatory lengthening.

That there could be some lengthening going on is supported by an initial inspection that shows that the waveform of the shortened word looks almost as long as the waveform of the non-shortened alternate.

## Conclusion

It remains to determine the limits on this shortening.

The examples we have appear to be limited to frequently used root-plus-affix combinations.

This suggests that shortening is a type of lexicalization, sometimes with a specialized meaning.

We hope to stimulate further research on this phenomenon.

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