How synchronic analysis informs subgrouping: Against Proto-Algonquian-Blackfoot

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Overview

- Recent argument in Goddard (2018) that Blackfoot is a sister to the rest of the Algonquian family
- Two claims supporting this argument

- This paper:
  - synchronic phonological analysis provides simpler alternative
  - neither claim provides evidence for subgrouping
- (Today: just the first claim)
Outline

1. Blackfoot’s position in Algonquian

2. Goddard’s (2018) proposal (Claim #1)

3. Problems with the proposal

4. An alternative analysis

5. Discussion
Blackfoot’s position in Algonquian
Algonquian

- **Blackfoot** = westernmost language
- **Spoken in:**
  - Alberta, Canada
  - Montana, USA

(Frantz: 2017; Goddard 1975; Mithun 1999: 336–337)
Blackfoot Confederacy = four sovereign Nations
• Share common language, culture, and history
• Alliance of solidarity; not a governing body

• 3 reserves in Canada (Siksiká, Káínai, Aapátohsipikani)
• 1 reservation in USA (“Blackfeet” = Aamsskáápipikani)

Proto-Algonquian (subset of languages shown)

Proto-Algonquian:
- Blackfoot
- Arapaho
- Cheyenne
- Cree-Menominee
- Ojibwe-Potawatomi
- Meskwaki
- Shawnee
- Miami-Illinois
- Eastern Algonquian

Plains Algonquian (area):
- Micmac
- Abenaki
- Malecite-Passamaquoddy
- Massachusett
- Delaware

Central Algonquian (area):

[Proto-Algonquian: Aubin 1975; Bloomfield 1925, 1946; Goddard 1979; Hewson 1993; Hockett 1942; Michelson 1935; Miller 1959; Pentland 1979; Siebert 1941, 1975; Silver 1960; Voegelin 1941; but see Rhodes 2021 on Core Central Algonquian; Eastern Algonquian: Goddard 1974, 1980; but see Pentland 1992; Proulx 1984; Areal groupings: Mithun 1999]
Innovations and archaisms in Blackfoot

• Innovative sound changes “all contribute towards making Blackfoot vocabulary as a whole appear as un-Algonquian” (Michelson 1935: 142–143).

• “There are some apparent lexical archaisms in Blackfoot” (Goddard 1994: 188)

• “Blackfoot is clearly the most divergent language in the Algonquian family” (Goddard 2018).
Blackfoot’s position is contested!

• Not even Algonquian (Franklin 1823: 109; Gallatin 1836; Howse 1849: 113; Mackenzie 1789)

• Various relationships to Algonquian have been proposed:
  • A branch of its own (Michelson 1912)
  • Grouped with Cree and Cheyenne (Hayden 1863)
  • Grouped with Conoy and Beothuk (Pentland 1979)
  • Oldest dialectal layer of Algonquian (Goddard 1994)

• Earliest diverging language (Goddard 2018; Proulx 1980)
  • “Blackfoot is by far the most divergent of the Algonquian languages [...] and it remains to be shown whether [...] Blackfoot is a sister language of PA rather than a daughter” (Proulx 1980)
Goddard’s proposal

Claim #1: Word-initial *#iC
Goddard’s (2018) proposal

Traditional family tree
- Proto-Algonquian
  - Blackfoot
  - etc...

Goddard (2018)
- Proto-Algonquian-Blackfoot
  - Proto-Algonquian
    - etc.
Two arguments for shared innovations

1. Proto-Algonquian deletes word-initial #i / __C
2. Proto-Algonquian restructures an older paradigm of “post-inflectional suffixes” into the so-called absentative paradigm

This talk: just the first claim
Observation: Blackfoot has many stems in #iC

PA stems with #C related to Blackfoot stems with invariant #iC

• PA *ketem- (root)
  • Meskwaki keteminaw- ‘take pity on, bless with supernatural power’

• Blackfoot ikimm- TA ‘show kindness to, bestow power on’
  • ikímmisa! ‘bestow power on him!/care for her!’
  • ikímmiwa ‘he bestowed power on him’
  • nitsíkimmoka ‘he bestowed power on me’
Observation: Blackfoot has many stems in #iC

PA stems with #C related to Blackfoot stems with alternating #C ~ #iC

• PA *po·n- ‘cease’
  • cf. Meskwaki po·nikegwa ‘he pays his debt’

• Blackfoot ipon- ‘terminate, end, be rid of’
  • ponihtáát ‘pay!’
  • nitsipónihta ‘I paid’
  • iipónihtaawa ‘he paid’

“Independently, under synchronic conditions that have not been described, word-initial Bl |iC-| is sometimes realized as C-” Goddard (2018).
Observation: Initial *#i rare in PA

• No PA short *i in the first syllable, except:
  • before consonant clusters (some but not all);
  • before PA *r only reconstructible in PA *iren- ‘ordinary’
  • in demonstratives e.g. *iyog ‘this (inan.)’, *ini ‘that (inan.)’
  • and in relative roots e.g *iθ- ∼ *iš- {so}; to {somewhere}’

• But no lexical roots begin in *ip-, *ič-, *it-, *ik-, *is-, *iš-, *im-, or *in-.
## Motivation for proposal

- Initial syllables in PA are “weak”
  - No true consonant clusters
  - No contrast between *i and *e
  - Relative roots beginning in *t, e.g. PA *taθ- ‘somewhere’

<table>
<thead>
<tr>
<th>PA</th>
<th>Unami Delaware</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>*taθ-</td>
<td>té·kane _talá·wsu</td>
</tr>
<tr>
<td>Non-initial</td>
<td>*entaθ-</td>
<td>ntəntalá·wsí·ne·n</td>
</tr>
<tr>
<td>Changed†</td>
<td>*e·ntaθ-</td>
<td>yú _entala·wsíenk</td>
</tr>
</tbody>
</table>

† initial change = morphological ablaut of initial syllable (Costa 1996)
Motivation for proposal

- Case study: PA *taθ- ‘somewhere’

<table>
<thead>
<tr>
<th></th>
<th>PA</th>
<th>pre-PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>*taθ-</td>
<td>*entaθ-</td>
</tr>
<tr>
<td>Non-initial</td>
<td>*entaθ-</td>
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<td>*e·ntaθ-</td>
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</tbody>
</table>

*reduction*
Proposal: innovation in Proto-Algonquian

Proto-Algonquian-Blackfoot

*#iC

i > Ø / #__ (in most cases)

Blackfoot

*#iC

No change in Blackfoot

Proto-Algonquian

*#C

Innovation in PA

One aspect of general phonetic reduction in initial syllables
Problems with the proposal
Problems with proposal

1. Blackfoot also has initial weak syllables
2. Deletion does not occur in nouns (and other non-verbal categories)
3. Deletion does not occur for all clause types and valencies
1. Blackfoot *also* has initial weak syllables

- No true consonant clusters
- No contrast between *i* and *e (> B i) (Berman 2006; Oxford 2015)
- Relative roots show reduction, e.g. *oht*- ‘instrumental, source’

<table>
<thead>
<tr>
<th>Type</th>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>tsítskixpissi</td>
<td>‘when he danced by’</td>
</tr>
<tr>
<td>Non-initial</td>
<td>áxkuxtsitokoopsskaa?wa</td>
<td>‘so she can make broth with (them)’</td>
</tr>
<tr>
<td>Changed</td>
<td>ixtsítsksspai?wa</td>
<td>‘he is looking past’</td>
</tr>
</tbody>
</table>

[Blackfoot Words: word-AT1969-0758, word-AT1969-0016, word-AT1969-0293]
1. Blackfoot *also* has initial weak syllables

- Case study: *oht-* ‘instrumental, source’

<table>
<thead>
<tr>
<th></th>
<th>Blackfoot†</th>
<th>pre-Blackfoot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td><em>ts-</em></td>
<td><em>oht-</em></td>
</tr>
<tr>
<td>Non-initial</td>
<td>uxts-*</td>
<td><em>oht-</em></td>
</tr>
<tr>
<td>Changed</td>
<td>ixts-*</td>
<td><em>e·ht-</em></td>
</tr>
</tbody>
</table>

† /t/ → [ts] / {i, j}

reduction
2. Deletion does not occur in nouns

- Blackfoot nouns begin in C, not iC
- Unexpected if Blackfoot reflects PAB forms in *iC!

<table>
<thead>
<tr>
<th>Blackfoot</th>
<th>Proto-Algonquian</th>
</tr>
</thead>
<tbody>
<tr>
<td>kóóna</td>
<td>*ko·na</td>
</tr>
<tr>
<td>mííni</td>
<td>*mi·ni</td>
</tr>
<tr>
<td>miistsísá</td>
<td>*mi·twiya</td>
</tr>
<tr>
<td>ksísskstakiwa</td>
<td>*ki·šk-</td>
</tr>
<tr>
<td>pisstóóhtsi</td>
<td>*pi·nt-</td>
</tr>
</tbody>
</table>

kóóna: ‘ice’
mííni: ‘berry’
miistsísá: ‘tree’
ksísskstakiwa: ‘beaver’
pisstóóhtsi: ‘inside’

‘snow’
‘berry’
‘quaking aspen’
‘cut, chop, sever’
‘inside’
3. Deletion does not occur for all clause types and valencies

• Clause types: Imperatives and subjunctions (with no prefixes)
  • PA *po·n- ‘cease’
  • B ponihtáát ‘pay!’

• Valencies: Statives (with no prefixes)
  • PA *ra·nk- ‘light in weight’
  • B saahksstssímma anná pookááwa ‘the child is light in weight’ [F&R 2017: 232]
Summary: Problems with proposal

• Blackfoot shows synchronic reduction in initial syllable
  • This was motivation for *i > Ø / #__ in Proto-Algonquian
  • So why doesn’t Blackfoot delete…?

• Blackfoot must delete in many cases
  • Nouns and non-verbs
  • Imperatives and subjunctives
  • Statives
An alternative analysis

Proto-Algonquian-Blackfoot

i > ∅ / #__

Blackfoot

#C (nouns)

#C (imp, subj)

#C (statives)

#C (???)

Proto-Algonquian

i > ∅ / #__

Blackfoot

etc...

etc...

*#C

innovation

Proto-Algonquian

#C

Blackfoot

#C ~ iC
An alternative analysis
Arguments that #i was added in Blackfoot

• Initial #i only occurs
  • after a prefix
  • in past tense (a novel alternative to archaic initial change)

• Evidence that Blackfoot roots begin in *C
  1. Synchronic analysis explains roots in #C ~ #iC
  2. Historical record explains roots in invariant #iC
  3. Morphological ablaut additional evidence
Synchronic analysis: roots in #C ~ #iC

**Left edge**
ponihtáát
‘pay!’

**After prefix**
áaksìponihtaawa
‘she will pay’

ákáíponihtsiwa
‘he is dead’

**After C**
After V

(Frantz & Russell 2017: 91)
Synchronic analysis: non-alternating roots

Left edge
ipótsimatsísa!
‘poison him!’

ikímmisa!
care for her!

After prefix
áaksipótsimatsíwa
‘she’ll poison him’

áaksikímmiíwáyi
‘he will bestow power on her’

Non-alternating roots have been reanalyzed as /i/-initial.

(Frantz & Russell 2017: 46, 92)
**Synchronic analysis: two groups of roots**

<table>
<thead>
<tr>
<th>Left edge</th>
<th>After prefix</th>
<th>UR</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>pon-</td>
<td>-ipon-</td>
<td>/pon-/</td>
<td>‘cease’</td>
</tr>
<tr>
<td>ipotsim-</td>
<td>-ipotsim-</td>
<td>/ipotim-/</td>
<td>‘poison’</td>
</tr>
<tr>
<td>*p</td>
<td>*-p</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- NB: very few roots in #iC under this analysis
- Similar to Proto-Algonquian

Historical record

- For roots with invariant #i, often possible to show this is a recent addition by looking at the historical record.
- Tool: Blackfoot Words database (https://www.blackfootwords.com/)

(Weber 2022; Weber et al. forthcoming)
Historical record: Blackfoot Words

• relational database of inflected words and phrases, and their subparts
• 63,493 lexical forms have been digitized to date from 30 sources
• timespan: 1743–2017 (almost 300 years!)
• Version 1.1 includes 9 of 30 sources

• F&R 2017 = Frantz & Russell (2017)
• word-AB1234-000789 = unique id from the database
Historical record: kimm- ‘pity’

• ikímmisa! ‘bestow power on him!/care for her!’ [F&R 2017: 46]

• kímmisa! pity thou him! [word-AT1969-1405]
• kĩm’ĩs pity him! [word-JT1889-6231]

• kĩm’okĩt pity me! [word-JT1889-6232]
• kímmokit pity me! [word-CU1938-13981]
Morphological ablaut ("initial change")

• Initial change = morphological ablaut of first syllable (Costa 1996)
• In C-initial stems, initial change has been restructured:
  • Archaic: first vowel ablauts (~100 stems; Taylor 1967)
  • Novel: add an initial \(i\)- or \(ii\)-

• Archaic changed forms can diagnose whether a syllable is initial
• Not all stems have archaic changed forms

(aspects of Blackfoot initial change in Berman 2006; Frantz 2017; Proulx 2005; Taylor 1967, 1969)
Root: ipotsim- ‘poison’

Plain: ipótsimatsísa! ‘poison him!’ [F&R 2017: 92]

Changed (arch.): náápotsimatsiiway ‘he poisoned him’ [word-AT1969-2978]
niiipotsímatxísa ‘poison thou him!’ [word-AT1967-107]

Changed (new): iiipotsímatxíway ‘he poisoned him’ [word-AT1967-105]
ipótsimatsiiwáyi ‘she poisoned it’ [F&R 2017: 92]
Root: pon- ‘cease’ is C-initial

Plain:  

ponihtáát! ‘pay!’  
poonixtátsisa ‘pay thou him!’

[F&R 2017: 91]
[word-AT1967-112]

• Changed (arch.):  

paanixtátsisa ‘pay thou him!’

(word-AT1967-111)

(not: *nááponixtátsisa, *nííponixtátsisa)

• Changed (new):  

iipónihtaawa ‘he paid’

[F&R 2017: 91]

• If this root were /ipon-/, it should pattern with other i-initial roots

• Initial change only affects first syllable, showing that p is initial
Summary

• Evidence that Blackfoot roots begin in *C
  1. Synchronic analysis explains roots in #C ~ #iC
  2. Historical record explains roots in invariant #iC
  3. Morphological ablaut additional evidence
An alternative analysis: Blackfoot innovations

- Blackfoot #C continues in:
  - nouns
  - imperative and stative verbs

- Blackfoot #iC innovated for:
  - verbs, after prefixes
  - verbs, past tense (< initial change)
An alternative analysis

- Blackfoot roots are shared retainences from PA with additional innovations within the verbal system
  - Roots in non-initial position have initial #i
  - Some roots reanalyzed as truly #i-initial, contrasting with C-initial roots
  - Initial change in C-initial roots was restructured

- No innovations for the remaining languages = no subgrouping

Discussion
Synchronic analysis

• Synchronic analysis is necessary!
  • Morphophonological alternations
  • Phonological underlying forms
  • Internal reconstruction

• Cannot look at words in isolation without considering their place in the system.

• (See our organized session on prosodic structure on Sunday!)
Digitizing and annotating the historical record is necessary!
  - Blackfoot Words aims to do this (Weber et al. 2022)
  - Huge task!
  - Two years and counting...
Comparative method

• New cognate sets are needed!
  • Many papers on historical phonology in Algonquian compare forms in a language to the established Proto-Algonquian reconstructions
  • But new data might reveal new things!
  • Need new cognate sets and correspondence sets
  • (Perhaps Pentland’s posthumous Proto-Algonquian dictionary?)

• Comparison of prosodic structure is necessary!
  • (See our organized session on prosodic structure on Sunday!)
  • Possibly: Blackfoot has restructured prosodic structure over time.
Summary

• No evidence for Proto-Algonquian-Blackfoot
  • No major prevalence of #iC roots in Blackfoot
  • Determined by synchronic analysis
  • Alternative: Blackfoot continues PA roots in #C
In memoriam

Donald Frantz (d. 2021)

David Pentland (d. 2022)

Photo by Arden Ogg
Nítohtsikaahsi’taki! Thank you!

• Many thanks especially to Joseph Salmons, who has consistently encouraged me to continue working on this project.

• Thanks as well to my Blackfoot teachers, including Beatrice Bullshield, Natalie Creighton, and Rod Scout.
References


References


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References


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