Blackfoot Nominalization Patterns

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INTRODUCTION

Nominalizations, which are defined in this paper as verbal linguistic objects that are re-categorized as nominal, are ubiquitous in Blackfoot. An example is given in (1) below.

(1) Oma áóhpopa atapó omi pookáiks
om-wa a-óhpop-aa itap-oo om-yi pookaa-iksi
DEM-PROX IMPF-hold.child-AI to-go.AI DEM-INAN child-PL

otsitawááwaahkaahpiyaa.
3-LOC-IMPF-play-AI-CN-3PL-3PL.PRN
‘The babysitter went to the playground.’
‘(lit.) The one who holds children went to the place where children play.’

1. Sincere thanks to our Blackfoot consultants, Beatrice Bullshields and Rachel Ermine-skin for sharing their language with us. Nitsikóhtasi’taki. Also thanks to the participants of the Western University Nominalization Workshop, as well as the audience at the 44th Algonquian Conference, for fruitful discussion about nominalizations and the patterns discussed here. All errors are our own.

2. Unless otherwise cited, examples are from our fieldwork with speakers of the Kaináá and Siksiká dialects. The generalizations presented here reflect our consultants’ judgments, and are not necessarily consistent with Frantz’s (2009) Blackfoot Grammar. Abbreviations: 1, 2, 3 = first, second, third person; colon (:) = acting on (e.g., 3:INAN = third person acting on inanimate); ABL = ability; AI = animate intransitive; ANIM = animate; ASSOC = associative; CAUS = causative; CN = conjunct nominal; CONJ = conjunct; DEM = demonstrative; DIR = direct; FUT = future; IC = initial change; II = inanimate intransitive; IMPF = imperfective; INAN = inanimate; INCL = inclusive; INSTR = instrumental; INTNS = intensifier; INV = inverse; INVIS = invisible; LOC = locative; NEG = negation; NOM = nominalizer; OBV = obviative; PERF = perfect; PL = plural; POSS = possessive; PRN = pronoun; PROX = proximate; TA = transitive animate; TI = transitive inanimate.
The goals of this paper are threefold: (i) to develop and apply language-specific diagnostics for nominalization in Blackfoot; (ii) to develop a theoretically motivated typology of nominalizations based on what we identify as the integral ingredients of nominalizations; and (iii) to apply this typology to describe and classify Blackfoot nominalizations.

DIAGNOSTICS FOR NOMINALIZATION IN BLACKFOOT

We begin by addressing the question of what identifies Blackfoot deverbal nominalizations as nominal, rather than verbal categories. Because the defining properties of syntactic categories vary across languages, the diagnostics for nominalization are necessarily language-specific. Broadly speaking, if nominalizations are nominal, they should have the syntactic and morphological distribution of nouns. In Blackfoot, underived nouns can be suffixed with nominal number morphology (2a), preceded by a demonstrative determiner (2b), and inflected with a possessive prefix (2c).

(2) a. imitáiks     b. oma imitááwa     c. nitómitaama
    imitaa-iksi  om-wa  imitaa-wa  nit-imitaa-m-wa
    dog-ANIM.PL DEM-PROX dog-PROX 1-dog-POSS-PROX
    ‘dogs’        ‘that dog’       ‘my dog’

In what follows, we examine each of these distributional properties of underived nouns in more detail, and determine whether they apply to nominalizations.

Like underived nouns, nominalizations in Blackfoot have nominal number marking. Arguably, this is the best diagnostic for nominality in Blackfoot because it is exceptionless. All nouns can be marked for singular or plural number; there are no mass or non-count nouns in Blackfoot (cf. Wiltschko 2012). The proximate singular suffix -wa is used in both the verbal and nominal paradigms, but the other number suffixes are unique to the
nominal paradigm. This means that proximate singular forms are ambiguous between verbal and nominal readings (3a), but plural forms are uniquely identified as either verbal (3b) or nominal (3c). With respect to diagnosing nominality, then, plural marking is a reliable diagnostic.

(3) a. Áyo’kaawa. b. Áyo’kaayaaawa. c. áyo’kaaiks
   a-yo’kaa-wa a-yo’kaa-yi-aawa a-yo’kaa-iks
   IMPF-sleep.AI-PROX IMPF-sleep.AI-3PL-3PL-PRN IMPF-sleep.AI-3PL
   ‘S/he is sleeping.’ OR ‘They are sleeping.’ ‘the sleeping ones’

Like underived nouns, nominalizations can be preceded by demonstrative determiners, as illustrated in (4):

(4) Omi nitsitsitó̱mihkaalpi omi niyitaatán iksisamo.
   Om-yi nit-it-it-oto-mi-hkaa-hp-yi om-yi niyitaatán iksisamo
   DEM-INAN 1-LOC-LOC-go-fish-acquire.AI-CN-INAN DEM-INAN river long.time.II
   ‘That time I went fishing at the river was a long time ago.’

It must be noted that most demonstratives can also function pronominally, as arguments of a verbal predicate. Thus, the presence of the demonstrative is not in itself a reliable diagnostic of nominality. However, certain demonstrative forms, such as annahk, cannot be used pronominally, although they can modify a nominalization. This is shown in (5), which can only be interpreted as a nominal expression with a demonstrative determiner, and not as a clause with a demonstrative pronoun subject.

(5) annahk aahksáóyiwaahk
   ann-wa-hk aahksa-a-iyo-i-wa-hk
   DEM-PROX-INVIS always-IMPF-eat.AI-PROX-INVIS
   ‘The one who is always eating’
   Not: ‘S/he’s always eating.’

Regarding the third diagnostic, we saw that underived nouns can be inflected with a person prefix that functions as a possessor. As in other Algonquian languages, both nouns and verbs take person prefixes. However, there are two differences between the paradigms: First, the nominal paradigm uses the overt second person prefix (kit-), to mark inclusive person, whereas the
verbal paradigm uses the unprefixed impersonal form. Second, the verbal paradigm imposes restrictions on the distribution of the third person prefix *ot*-, but the nominal paradigm does not. Nominalizations may have either nominal or verbal person prefixes (but not both). While verbal prefixes attach inside the nominalization, nominal prefixes attach outside the nominalization:

(6) a. Verbal prefixes: \[ \text{[nom}} \text{[nit-}/\text{kit-}/(\text{ot-})\text{XP}_{\text{VERBAL}}] \]

b. Nominal prefixes: \[ \text{[nit-}/\text{kit-}/\text{ot-}[\text{nom}} \text{[XP}_{\text{VERBAL}}] \]

The first strategy is shown in (7a), where no person prefix is present, while (7b) shows that an overt prefix is ungrammatical in this context indicating that the verbal strategy for inclusive marking is used. The second strategy, involving a nominal prefix attaching outside the nominalization, is shown in (8a); (8b) shows that the absence of a person prefix to mark inclusive (i.e., the verbal strategy) is ungrammatical.

(7) a. Omiksi aissksinima’nstok’ksi maatáísoki’taikiwaaiksaa.

om-iki  a-issksinima’tsti-ok-i-iksi  maat-a-sok-i’taki-waaiksaa
DEM-PL IMPF-teach.TA-INV-LOC-PL NEG-IMPF-good-feel.AI-3PL.PRN

‘Our teachers are not happy.’

‘(lit.) Those who teach us are not happy.’

b. *Omiksi kitaiissksinima’nstokinnooniks’ksi maat-aisoki’taki-waaiksaa.

om-iki  kit-a-issksinima’tsti-ok-innoon-iksi  maat-a-sok-i’taki-waaiksaa
DEM-PL 2-IMPF-teach.TA-INV-INCL-ANIM.PL NEG-IMPF-good-feel.AI-3PL.PRN

Intended:

‘Our teachers are not happy.’

(8) a. Omi kitsítok’hiitaannooni ikáahsii.

om-yi  kit-sitok-ihkitaa-n-innoon-yi  ik-yaaahsii
DEM-INAN 2-middle-bake.AI-NOM-INCL-INAN INTNS-be.good.II

‘Our pie is good.’

b. *Omi sitok’hiitaanono’pi ikáahsii.

om-yi  sitok-ihkitaa-n-o’pi-yi  ik-yaaahsii
DEM-INAN middle-bake.AI-NOM-INCL-INAN INTNS-be.good.II

Intended: ‘Our pie is good.’

4. The third-person prefix *ot* only appears on verbs in conjunct order clauses, and in non-local inverse independent order clauses.
In summary, person marking can occur either inside or outside the nominalization, and person marking inside a nominalization cannot serve as a diagnostic for nominality, because it belongs to the verbal paradigm. However, variation in person marking gives us a clue as to how to classify nominalizations.

**INGREDIENTS OF NOMINALIZATIONS**

To classify nominalization patterns, we need to identify the ingredients of nominalization. Nominalizations minimally consist of three ingredients: (i) a nominalizer (i.e., an element in the nominalization, overt or not, that serves to mark the nominalization as nominal), (ii) a referent (the “R” argument, in the sense of Williams 1981), and (iii) a verbal category from which the nominalization is derived.

Identifying the ingredients for nominalization gives us a foundation upon which we can build a typology of nominalization. In particular, we propose to distinguish different types of nominalizations along the following three parameters:

- What serves to **MARK** a given constituent as being nominalized?
- What serves as the **REFERENT** (R) of the newly formed nominal?
- What is the **INPUT** (syntactic category) of the nominalized constituent?

Regarding the first parameter, the marking of nominalizations, we see that in languages such as English, nominalizations vary according to the morpheme that marks the nominalization as nominal. Regarding the second parameter, nominalizations also vary according to their referent. Examples are given in (9):

<table>
<thead>
<tr>
<th>Verb</th>
<th>Nominalization</th>
<th>Referent</th>
</tr>
</thead>
<tbody>
<tr>
<td>[v, transform]</td>
<td>the [ tense, transform]-ation</td>
<td>R=process/result</td>
</tr>
<tr>
<td>[v, employ]</td>
<td>the [n, v, employ]-er</td>
<td>R=AGENT</td>
</tr>
<tr>
<td>[v, employ]</td>
<td>the [n, v, employ]-ee</td>
<td>R=THEME</td>
</tr>
<tr>
<td>[v, call]</td>
<td>the [n, v, call]-ing</td>
<td>R=event</td>
</tr>
</tbody>
</table>

5. We depart here from Johansson (2012), who uses the ungrammaticality of nominal prefixes as a diagnostic for distinguishing relative clauses from nominalizations.
Regarding the third parameter, as noted by Abney (1987), nominalization in English can target different levels of the extended verbal projection (see also Borsley and Kornfilt 1999; Kornfilt and Whitman 2011; Schueler 2005). Examples are given in (10); the structural representation of the different levels of nominalization is given in (11).

(10) Verbal Input Nominalization
\[ \text{John is calling the girl} \] \[ \text{John calling the girl} \] bothers me \[ \text{ACC-ING} \]
\[ \text{John is } \text{[v, call]-ing the girl} \] \[ \text{John’s [calling the girl] bothers me} \] \[ \text{POSS-ING} \]
\[ \text{John is } \text{VP} \] \[ \text{John’s [call]ing of the girl bothers me} \] \[ \text{ING-OF} \]

(11) \[ \text{[ip ACC-ing [vp POSS-ing [v ing-of ]]]} \]

In the following section we apply this typology to Blackfoot nominalization patterns.

Classifying Nominalizations in Blackfoot

Blackfoot has four different types of deverbal nominalization. In this section, we classify each of them according to the typology developed above. A summary of the nominalization patterns is given in Table 1:

<table>
<thead>
<tr>
<th>INSTRUMENT</th>
<th>ABSTRACT</th>
<th>BARE</th>
<th>CONJUNCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marking</td>
<td>Nominalizer -a’tsis</td>
<td>Nominalizer -hsin</td>
<td>—</td>
</tr>
<tr>
<td>Reference</td>
<td>Instrument</td>
<td>Process/Result</td>
<td>Clause-Internal \text{ACTOR/GOAL}</td>
</tr>
<tr>
<td>Input</td>
<td>Verb Stem</td>
<td>Verb Stem</td>
<td>Independent \text{Order Clause}</td>
</tr>
</tbody>
</table>

6. The term \text{EXTENDED VERBAL PROJECTION} is due to Grimshaw (2000). Here, it refers to any functional phrase dominating the V(erb) P(hrase), including I(nflection) P(hrase), the category of S, and C(omplementizer) P(hrase), the category of S'.
The first nominalization pattern we consider is called **ABSTRACT NOMINALIZATION** by Frantz (2009:115). These nominalizations are marked as nominal by a nominalizing suffix \(-hsin \sim -n\), and their referent is the process/result/state/experience of the eventuality denoted by the verb. Examples are given in (12).

(12) a. ititóóhtsimssin  b. sitóóikhitaan
   iitoohtsimi-\textit{hsin}  sitok-ikhitaa-\textit{n}
   understand.\textit{Blackfoot.AI-NOM}  middle-cook.\textit{AI-NOM}
   ‘understanding of \textit{Blackfoot}’  ‘\textit{pie}’

Abstract nominalizations qualify as nominal; they can be pluralized with nominal plural marking, as shown in (13).

(13) Omiksi aawapsspiinio’ssin\textit{iksii} innisiya.
   om-iksi aawapsspiiniao’si-\textit{hsin}-iksi inn-isi-yi-aawa
   DEM-\textit{ANIM.PL} wear.\textit{eyeglasses.AI-NOM-ANIM.PL} down-fall.\textit{II-3PL-3PL.PRN}
   ‘Those eyeglasses fell.’

Regarding the verbal input for abstract nominalizations, they are formed from intransitive verb stems, as schematized in (14). Transitive verb stems (TA and TI verbs) are not possible in this context.

(14) \[
\begin{array}{l}
\text{Nominalization} [\text{Stem (Adv)/(N)}-[\text{Root V}] - \text{AI/II Final}] -hsin
\end{array}
\]

In (14), the nominalization is formed by adding \(-hsin\) to a verb stem that consists of a root plus an AI or II final, and optionally an adverbial prefix or incorporated noun. Evidence that abstract nominalization minimally requires a stem (and not a root) comes from the fact that abstract nominalizations must contain a final. This is shown in (15).

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7. The \(-n\) allomorph follows stems ending in \(-aa\); the \(-hsin\) allomorph occurs elsewhere (Frantz 2009:115).

8. We have only seen one example of an abstract nominalization formed from an II verb, namely \(sóótaan\) ‘rain.’ It remains to be seen whether there are other II-derived abstract nominalizations.
Evidence that abstract nominalization *maximally* requires a stem (and not a larger syntactic object, like a clause) comes from the restrictions on optional elements within the nominalization. For example, abstract nominalizations can contain incorporated nouns (16a), but not NPs (16b). Our analysis of incorporated nouns as stem-internal is built on the assumption that incorporated nouns function like medials to form complex stems (Dunham 2009).

(16) a. **Ponokáíksskimaani áákohkotsstsstónata’pi.**
    ponoka-ikskimaan-ni yaak-ohkot-ik-sstonnat-a’pii
    elk-hunt.AI-NOM-INAN FUT-ABL-INTNS-dangerous-be.AI
    ‘Elk-hunting can be really dangerous.’

b. *Iksskimaani **ponoká** áákohkotsstsstónata’pi.
    ikskimaan-ni **ponoká** yaak-ohkot-ik-sstonnat-a’pii
    hunt.AI-NOM-INAN **elk** FUT-ABL-INTNS-dangerous-be.AI
    Intended: ‘Hunting elk can be really dangerous.’

Additionally, abstract nominalizations may contain adverbal preverbs, stem-internal prefixes that indicate manner, time, location, frequency, etc. However, they cannot contain LINKERS (or relative roots), i.e., prefixes that are required for the introduction of oblique nominal expressions. Examples of each are given in (17) and (18) below.

(17) a. **Ikkámsspiyiwa.**
    ikkam-ihpiyi-wa
    **fast**-dance.AI-PROX
    ‘S/he danced quickly.’

b. **Mattsspiyiwa.**
    matt-ihpiyi-wa
    **again**-dance.AI-PROX
    ‘S/he danced again.’

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9. In Blackfoot, some incorporated nouns (e.g., body parts) are linearized after the root and some (like the one in (16a)) are linearized before the root.
We assume that adverbial prefixes and linkers are in different positions in the syntax. Like incorporated nouns, adverbial prefixes form complex stems. However, linkers, which introduce NP adjuncts, form complex vPs. This syntactic difference accounts for the fact that the adverbial prefixes but not the linkers can occur in abstract nominalizations; the former but not the latter are stem-internal. Examples are given in (19) and (20) below.

(19) a. Nitsawááhká.
   nit-sa-waahkaa
   1-outside-play.AI
   ‘I played outside.’

b. Sawááhkaani ikso’a’pii.
   sa-waahkaa-n-yi ik-sok-a’pii
   outside-play.AI-NOM-INAN INTNS-good-be.II
   ‘Playing outside is good.’

(20) a. Nitsítááhka omi otsitawááhkaahpiyaa.
   nit-it-waahkaa om-yi ot-it-a-waahkaa-hp-yi-aawa
   1-LOC-play.AI DEM-INAN 3-LOC-IMPF-play.AI-CN-3PL-3PL.PRN
   ‘I played at the playground.’

b. *Itáwaahkaani (omi otsitawááhkaahpiyaa) ikso’a’pii.
   it-a-waahkaa-n-yi (om-yi ot-it-a-waahkaa-hp-yi-aawa)
   LOC-IMPF-play.AI-NOM-INAN (DEM-INAN 3-LOC-IMPF-play.AI-CN-PL-3PL.PRN)
   ik-sok-a’pii
   INTNS-good-be.II
   Intended: ‘Playing (at the playground) is good.’
The final piece of evidence that abstract nominalizations are formed maximally from verb stems comes from the observation that abstract nominalizations cannot contain the person prefixes from the verbal paradigm. Following Déchaine and Wiltschko (2014), we assume that the verbal person prefixes are merged in Spec,IP (subject position) and form full clauses. Thus, the fact that abstract nominalizations can only be used with nominal person prefixes supports our claim that abstract nominalizations are formed from verb stems.10 The examples in (21) show that abstract nominalizations can only be used with the nominal person marking (which is distinct from the verbal marking in the inclusive).

(21) a. *Omi sitokiihtaanono’pi ikááhsii.
   om-yi   sitok-ihkitaa-n-0’p-yi   ik-yaahsii
   DEM-INAN middle-bake.AI-NOM-INCL-INAN INTNS-be.good.II
   Intended: ‘Our pie is good.’

   b. Omi kitsitókihiitaannooni ikááhsii.
   om-yi   kit-sitok-ihkitaa-n-innoon-yi   ik-yaahsii
   DEM-INAN 2-middle-bake.AI-NOM-INCL-INAN INTNS-be.good.II
   ‘Our pie is good.’

The second type of nominalizations we consider are INSTRUMENT NOMINALIZATIONS, which are marked as nominal by virtue of a nominalizing suffix -a’tsis, and refer to the instrument of the action denoted by the verb. Examples are given in (22) below.

(22) a. ikka’tsis
    iikki-a’tsis
    whistle.AI-NOM
    ‘whistle’

    b. aaná’kimaat’tsis
    waana’kimaat-a’tsis
    illuminate.AI-NOM
    ‘lantern/lamp’

Instrument nominalizations can be identified as nominal by virtue of nominal plural marking, either animate (23a) or inanimate (23b).

10. See Ritter (2014) for arguments that nominalized Blackfoot verb stems are nominalizations of Inner-Aspect, which is a VP-internal functional category.
Like abstract nominalizations, the input for instrument nominalizations is an intransitive verb stem, as schematized in (24).

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(24) \[
    \text{Nominalization} \left[ \text{Stem} \left[ \text{Root V} \right] - \text{AI/II Final} \right] -a \text{tsis}
\]

Evidence that instrument nominalizations minimally take a verb stem as their input comes from the observation that they must contain a \( \_f \)nal, as shown in (25), and evidence that they maximally take a stem comes from the observation that they cannot contain the verbal person prefixes, as shown in (26).

(25) Nitsitáání amo sinááki’tsis /*sináá’tsis.
    nit-itaanii amo sina-aki-a’tsis sina-a’tsis
    1-read.AI DEM draw-AI-INSTR draw-INSTR
    ‘I read this book.’

(26) a. kitsóópa’tsínoon
    kit-iso-opii-a’tsis-innoon
    2-on-sit.AI-NOM-INCL
    ‘our (INCL) chair’

b. *sóópa’tsiyo’p
    iso-opii-a’tsis-o’p
    on-sit.AI-NOM-INCL
    Intended: ‘our (INCL) chair’

The third nominalization type we consider are BARE NOMINALIZATIONS, so named because they are not morphologically marked as nominal. Singular proximate forms are ambiguous; the same form can be either verbal or nominal, but the plural forms are not ambiguous. As such, nominal plural marking functions as a diagnostic for bare nominalizations. Examples of both singular and plural bare nominalizations were given in (3a) and (3c), repeated here as (27).
(27) a. Áyo’kaawa.  b. áyo’kaaiiks
   a-yo’kaa-wa  a-yo’kaa-iksi
   IMPF-sleep.AI-PROX  IMPF-sleep.AI-3PL
   ‘S/he is sleeping.’ OR  ‘the sleeping ones’
   ‘the one who sleeps’

Bare nominalizations do not have a fixed reference. The referent is either the ACTOR or the GOAL, and which of these serves as the referent depends on the verb final and/or theme suffix in the nominalization. The patterns are summarized in Table 2.

<table>
<thead>
<tr>
<th>INPUT</th>
<th>REFERENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ip…Val]n</td>
<td>ACTOR</td>
</tr>
<tr>
<td>[ip…VTI+m]n</td>
<td>ACTOR</td>
</tr>
<tr>
<td>[ip…VTA+yii]n</td>
<td>ACTOR</td>
</tr>
<tr>
<td>[ip…VTA+ok]n</td>
<td>ACTOR</td>
</tr>
<tr>
<td>[ip…VTA+ai]n</td>
<td>GOAL</td>
</tr>
</tbody>
</table>

Regarding bare nominalizations formed from AI and TI verbs, the referent is always the ACTOR. Examples are given in (28) and (29) below.11

(28) Omiksi áihpiiyksi mááño’toya mátonní.
   om-iksi a-ihpiiy-iksi maan-o’too-yi-aawa matonní
   DEM-PL IMPF-dance-PL recent-arrive.AI-3PL-3PL.PRN yesterday
   ‘Those ones who are dancing just arrived yesterday.’

(29) Anna íiwatooma omi koopskáán ákaomatapóó.
   ann-wa ii-oowat-oo-m-wa om-yi koopskaan aaka-omatap-oo
   DEM-PROX IC-eat-TI-3:INAN-PROX DEM-INAN soup PERF-start-go.AI
   ‘The one who ate that soup has left.’

Bare nominalizations formed from TA verbs can have either the ACTOR or GOAL argument as their referent. The generalization is that the highest

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11. Following Taylor (1967) and Proulx (2005), we analyse ii- in (29) as a type of INITIAL CHANGE (IC), a morphophonological modification that affects the quality of the initial vowel in the verb stem (following the person prefixes).
third person on the direct/inverse person hierarchy serves as the referent. The hierarchy is given in (30).

(30) Direct/inverse person hierarchy
    1 > 2 > 3PROX > 3OBV

Depending on which theme marker appears in the nominalization, the referent varies. The local theme markers do not appear in nominalizations, because these do not make reference to a third-person argument that can serve as the referent.\footnote{12} In mixed interactions, the GOAL serves as the referent in the direct theme, and the ACTOR serves as the referent in the inverse theme. This is shown in (31) and (32). Finally, in non-local interactions, only the direct theme marker is attested in nominalizations,\footnote{13} and in this case, the referent is the ACTOR, as shown in (33).

(31) Amokia nitáissksinima’tsaiksi aakaotóóyaa.
    amo-iksi nit-a-issksinima’tst-a-iksi aaka-ootoo-yi-aawa
    DEM-PL 1-IMPF-teach.TA-\textbf{DIR}-ANIM.PL PERF-arrive.AI-3PL-3PL.PRN
    ‘My students have arrived.’
    ‘(lit.) The ones I teach have arrived.’

(32) Omiksi nitáissksinima’tstokksi maatáisoki’takiwaaiksaa.
    om-iksi nit-a-issksinima’tst-\textbf{ok}-iksi maat-a-sok-i’taki-waaiksaa
    DEM-PL 1-IMPF-teach.TA-\textbf{INV}-ANIM.PL NEG-IMPF-good-feel.AI-3PL.PRN
    ‘My teachers are unhappy.’
    ‘(lit.) The ones who teach me are unhappy.’

(33) Omiksi ikskiimatsiksi omi pónoka itapóó naapiyis.
    om-iksi ikskiimat-yii-iksi om-yi ponoka itap-oo naapiyis
    DEM-PL hunt.TA-\textbf{DIR}-PL DEM-INAN elk to-go.AI house
    ‘The hunters of that elk went to a lodge.’

\footnote{12} First and second persons are unavailable for R-assignment. We assume that this restriction is due to the fact that local persons are indexical, and as such, cannot function as R.

\footnote{13} It remains to be seen if bare nominalizations can be formed with the non-local inverse. No nominalizations of this sort are described by Frantz (2009) and attempts to elicit them in fieldwork have not been successful.
In sum, the referent in bare nominalizations is the highest third person argument.

Regarding the verbal input for bare nominalizations, they are formed from independent order clauses (CPs), as schematized in (34).

(34) \[
\text{Nominalization [CP-independent \ldots]} \]

Evidence that bare nominalizations are formed from CPs comes from the fact that they can contain anything found in a full independent clause, including, for example, linkers and adjunct expressions, as in (35).

(35) Omiksi itsitsipsstáyo’káiksi omi ksikkokóówayi annohk mááno’tooyaa matónni.
   om-iki it-it-ipsst-a-yo’kaa-iki omi-yi ksikkokoowa-yi annohk
   DEM-PL LOC-LOC-in-IMPF-sleep.AI-PL DEM-INAN tent-INAN now
   maan-o’too-yi-aaawa matonni
   just-arrive.AI-3PL-PL.PRN yesterday
   ‘Those ones sleeping in that tent right now just arrived yesterday.’

Bare nominalizations employ verbal person marking; they cannot be used with nominal person prefixes. This is shown by the lack of an overt person prefix in the inclusive forms in (36).

(36) a. iinoáwa
   iino-a-wa
   see.TA-DIR-PROX
   ‘the one we (INCL) saw’ (Frantz 2009:125)

b. *kitsíinoainnoona
c. kitsíinoawaawa
   kit-iino-a-innoon-wa
   kit-iino-a-0aawa-wa
   2-see.TA-DIR-INCL-PROX
   2-see.TA-DIR-2PL-PROX
   Intended: ‘Our seen ones’
   ‘the ones you (PL) saw’

The last nominalization pattern we consider is the CONJUNCT NOMINALIZATION. Conjunct nominalizations are overtly marked as nominal, but

14. In earlier work (Bliss 2014; Ritter 2014; Wiltschko 2014), we analyzed bare and conjunct nominalizations as nominalized IPs. Here we adopt the claim that they are nominalized CPs, based on the fact that they include the number/obviation suffixes, which Bliss (2013) analyzes as part of the CP domain.
they differ from abstract and instrument nominalizations in that they are not marked as nominal by virtue of a nominalizing suffix that attaches outside the verbal input, but rather by virtue of the NOMINAL CONJUNCT SUFFIX \(-hp\) \(\sim -o\,^p\), which occupies the same morphological slot as the verbal conjunct order suffix \(-hsi\), as shown in (37).

(37) a. Nitsáápi [otáóyissí].
   nit-yaapi ot-a-ioyi-hsi
   1-see.AI 3-IMPF-eat.AI-CONJ
   ‘I saw that s/he was eating.’

   b. Nitsáápi [otáoyihpi].
   nit-yaapi ot-a-ioyi-hp-yi
   1-see.AI 3-IMPF-eat.AI-CN-INAN
   ‘I saw what s/he was eating.’

Conjunct nominalizations pass the diagnostic test for nominality: they can be pluralized with nominal plural marking, as shown in (38) below.

(38) Nitsiksstaato’p annistsi kitáówaatoo’písti.
   nit-ik-sta-atoo’-p ann-istsi kit-a-owa-atoo-o’p-ísti
   1-INTNS-want-TI-1:INAN DEM-PL 2-IMPF-eat-TI-CN-INAN.PL
   ‘I want those things that you are eating.’

Unlike abstract, instrument, and bare nominalizations, the referent of conjunct nominalization is highly variable; this appears to be an elsewhere strategy in that it refers to any VP-internal adjunct (including an instrument), or any third-person argument that cannot be the referent of a bare nominalization. Examples are given in (39).

(39) a. itáómiikao’pists
   it-a-omii-hkaa-hp-ístsi
   LOC-IMPF-fish-acquire.AI-CN-INAN.PL
   ‘places where we fish’

   b. ihtáómiikao’pists
   iht-a-omii-hkaa-hp-ístsi
   INSTR-IMPF-fish-acquire.AI-CN-INAN.PL
   ‘things we fish with’

   c. niitáómiikao’pists
   niit-a-omii-hkaa-hp-ístsi
   MANNER-IMPF-fish-acquire.AI-CN-INAN.PL
   ‘ways we fish’
d. áómihko’pists
   a-omii-hkaa-hp-istsi
   IMPF-fish-acquire.AI-CN-INAN.PL
   ‘things we fish (for)’

The referent of a conjunct nominalization is determined by the hierarchy in (40).

(40) Temporal Adjunct >> Other Adjuncts >> Object (>> Proposition)\(^{15}\)

The hierarchy ranks adjuncts above objects; this means that if there is a linker within the nominalization, the linked adjunct is necessarily the referent, even if there is an object in the clause that could potentially serve as the referent. This is shown for temporal, locative, and instrumental adjuncts in (41)–(43) below.

(41) Nitssksini’p otsitááníhpoaawaistsi.
    nit-ssksini-’p ot-itsitsi
   1-know.TI-1:INAN 3-LOC-say.AI-CN-3PL-INAN.PL
   ‘I know (the times) when they said that.’
   Not: ‘. . . the things they said then.’

(42) Amo itáöyo’pi kóöpis iksoksokaii.
    amo itooy-o’p-ya koops iksoksokaii
   DEM LOC-IMPF-eat.AI-CN-INAN soup INTNS-good-be.II
   ‘That soup eatery is good.’
   Not: ‘That soup we eat there . . .’

(43) Nitítstoo’p nitohyppi pisatskkitaan.
    nit-watstoo-’p nit-ohypp-ya pisatskkitaan
   1-lose.TI-1:INAN 1-IMPF-eat.AI-CN-INAN cake
   ‘I lost my cake fork.’
   Not: ‘. . . cake I eat with that thing.’

---

15. Examples listed by Frantz (2009) of a conjunct nominalization referring to the proposition are not accepted by our consultant.
The hierarchy also ranks temporal adjuncts above other types of adjuncts. As such, if there are multiple linkers within the nominalization, the temporal adjunct is R:\(^{16}\)

(44) matsípoyi nitsítsitsipstso’kahpi ksikookowa \(\text{TIME >> PLACE}\)
mat-iípoyi nit-it-it-ipsst-yo’kahka-hip-i ksikookowa
last-summer 1-\textsc{loc-loc}-in-sleep.AI-CN-INAN tent
‘last summer when I slept in a tent’
Not: ‘a tent I slept in last summer’

(45) Máátatsskinima ilihtsitáíssáakio’pi. \(\text{TIME >> INSTRUMENT}\)
Maat-at-sskini-m-wa ii-oht-it-a-issaaki-o’p-yi
NEG-again-know.TI-3:INAN-PROX IC-\textsc{instr-loc}-impf-wipe-CN-INAN
‘She forgot when we wipe with it.’
Not: ‘. . . what we wipe with then.’\(^{17}\)

Finally, if there are no linkers within the nominalization, the object (THEME/GOAL) serves as the referent. There are three types of objects that can function as a referent in conjunct nominalizations: objects of AI (‘pseudo-transitive’/‘paratransitive’) verbs (46), secondary objects of TA verbs (47), and inanimate objects of TI verbs (48).

(46) Nitsskiítaahpístsi ááksstoyitsiyaa.
nit-ilkiitaa-hpi-istsi yaa-skstoytisi-yi-aawa
1-bake.AI-CN-PL FUT-become.cold-II-3PL-3PL-PRN
‘The food I made will get cold.’

(47) Máátatsskinima annisk áánistahpi.
maat-tssksini-m-wa ann-yi-hk waanist-a-hip-yi
NEG-know.TI-3:INAN-PROX DEM-INAN-INVIS say.TA-DIR-CN-INAN
‘He doesn’t remember what we told him.’

---

\(^{16}\) It is yet unclear whether the other types of adjuncts also show these types of hierarchy effects with respect to reference assignment.

\(^{17}\) These are the judgments of our consultants. However, Donald Frantz (personal communication) reports that this form may be ambiguous for other speakers.
(48) Annihkayi iiwatoo’pi iksstónataahsii.
    annihkayi ii-owatoo-o’p-yi  ik-sstonat-yaahsii
    DEM.INAN IC-eat.TI-CN-INAN    INTNS-extremely-be.pleasing.II
    ‘That thing we ate was delicious.’

The verbal input for conjunct nominalizations is not a verb stem, but
rather a conjunct order clause (CP), as schematized in (49).

(49) [Nominalization [CP-conjunct · · · -hp]]

Evidence to support the claim that conjunct nominalizations are formed from
full clauses comes from the observation that conjunct nominalizations can
contain anything found in a full conjunct clause, including, for example,
concrete finals, theme marking, and arguments. An example showing all
three of these is given in (50).

(50) omiksi nitohpommáattsaahpiksi nohkówa
    om-iksi nito-ohpommaa-attsi-a-hp-iksi  n-ohko-wa
    DEM-PL  1-buy.AI-CAUS.TA-DIR-CN-ANIM.PL  1-son-PROX
    ‘those which I made my son buy’ (Frantz 2009:129)

Furthermore, conjunct nominalizations are formed using verbal person mark-
ing; they cannot be formed with nominal person prefixes, as shown in (51).

(51) a. Nitsítsooyi omi itáóyo’pi.
    nit-it-ioyi om-yi  it-a-oyi-o’p-yi
    1-LOC-eat.AI DEM-INAN LOC-IMPF-eat.AI-CN-INAN
    ‘I ate at that restaurant.’
    ‘(lit.) I ate at that place where we eat.’

b. *Nitsítsooyi omi kitsítáóyihpinnooni.
    nit-it-ioyi om-yi  kit-it-a-oyi-hp-innoon-yi
    1-LOC-eat.AI DEM-INAN  2-LOC-IMPF-eat.AI-CN-INCL-INAN
    Intended: ‘I ate at our restaurant/place of eating.’

c. Nitsítsooyi omi kitsítáóyihpoaawayi.
    nit-it-ioyi om-yi  kit-it-a-oyi-hp-oaawa-yi
    1-LOC-eat.AI DEM-INAN  2-LOC-IMPF-eat.AI-CN-2PL-INAN
    ‘I ate at the place where you (pl.) eat.’
CONCLUSIONS

In conclusion, we have demonstrated that nominalizations can be classified according to a typology based on three parameters: (i) what signals that a verbal category has been nominalized; (ii) what serves as the referent of the newly formed nominal; and (iii) what is the input verbal category of the nominalization. In this paper we have shown that these parameters distinguish four different types of nominalization in Blackfoot. Table 3 below summarizes the properties of each type.

TABLE 3: Summary of Blackfoot Nominalizations

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MARKING</th>
<th>INPUT</th>
<th>REFERENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bare</td>
<td>—</td>
<td>[CP-independent VAI...]</td>
<td>ACTOR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[CP-independent VTI...]</td>
<td>ACTOR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[CP-independent VTA -a...]</td>
<td>GOAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[CP-independent VTA -ok...]</td>
<td>ACTOR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[CP-independent VTA -yii...]</td>
<td>ACTOR</td>
</tr>
<tr>
<td>Conjunct</td>
<td>-hp</td>
<td>[CP-conjunct …Linker … Linker… -hp]</td>
<td>Time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[CP-conjunct … Object -hp]</td>
<td>Object</td>
</tr>
</tbody>
</table>

Future comparative research will allow us to determine whether these parameters are sufficient to characterize the full range of nominalizations in other Algonquian languages and beyond, and if not what other properties can be used to distinguish different types of nominalization.18

18. An anonymous reviewer asks whether Blackfoot bare and conjunct nominalizations have the status of gerunds. Given that gerunds refer to the process or result denoted by the source verb, and these constructions refer to the ACTOR, GOAL or some other entity, neither is a reasonable candidate for a gerund-like construction. Abstract nominalizations, which do refer to the process or result are also unlike gerunds in their internal properties. Most strikingly, they do not license an object (GOAL) DP/NP. The difference may lie in the input category: English gerunds appear to be VoiceP, a constituent that contains vP, whereas Blackfoot abstract nominalizations are Inner-Aspect, a constituent contained within vP, cf. Harley (2009), Ritter (2014) for discussion. See also footnote 10.
REFERENCES


