Special characters: ɪ ɑ æ ʔ

Deverbal Noun Composition in Mille Lacs Ojibwe

Hunter Johnson & Christopher Hammerly

While Algonquian languages are typically noted for their verb-centricity, there are various nominal elements that play an important role in the grammar.[1] The goal of this paper is to provide a description and preliminary analysis of the formation of a particular type of noun known as DEVERBAL NOUNS—nouns that are formed from verbs through the addition of "nominalizing" morphology—through a case study of the Mille Lacs variety of Southwestern Ojibwe (henceforth simply "Ojibwe" unless disambiguation is needed). We look at both broader patterns of deverbal noun formation through the creation and analysis of a small corpus sourced from the Ojibwe People's Dictionary (OPD, Livesay and Nichols 2022), then test these patterns by working with a first speaker of Ojibwe from Mille Lacs.

To understand where deverbal nouns fit into the grammar, we can consider the different types of nominal elements in the language. Some nouns in Ojibwe are simply nouns and are not formed by applying a derivational process to a word of a different category: for example, *akik* 'pail' and *ikwe* 'woman'. Languages like Ojibwe also have productive processes of forming nouns or nominal-like elements from other parts of speech such as participal relative clauses (1) and compounds (2).[2]

(1)   Participle formation (from Sullivan 2016)

    a.   wayaabishkiiwejig

          IC.waabishkiiwe-d-ig

          IC.is.white-3-PL

          'white people' (lit: 'Those who are white')

b. zhayaazhiibaabagizojig

IC.zhaazhiibaabagizo-d-ig

IC.hoop.dances-3-PL

'hoop dancers' (lit: 'Those who hoop dance')

(2) Nouns via compounding (from OPD)

a. giiyose-w-inini

hunt.VAI-COMP-man

'hunter'

b. mazina'ige-mazina'igaans

gets.on.credit.VAI-card

'credit card'

The focus of our research is on deverbal nouns: nouns formed by attaching a nominalizing morpheme to a verb stem. This process is demonstrated in (3).

(3) Deverbal nouns (from OPD & Joe Nayquonabe)

a. odaminow-**aagan**

play.VAI-NMLZ

'doll'

b. bakwezh-**igan**

cut.VTI-NMLZ

'bread'

c. anishinaabemo-**win**

speak.Ojibwe.VAI-NMLZ

'Ojibwe language'

d. ziinikiigomaa-**n**

blow.nose.VAI-NMLZ

'snot'

All these deverbal nouns are formed by adding a nominalizer (bolded, glossed as NMLZ) to an existing verb stem like *odamino* 's/he plays', *bakwezh* 's/he cuts a piece off something animate', *anishinaabemo* 's/he speaks Ojibwe', or *ziinikiigomaa* 's/he blows h/ nose'. Ojibwe speakers use this strategy to productively form nouns following the rules of the grammar and this project sets out to ask the question: what restrictions, if any, exist in the deverbal noun-making process in Ojibwe?

DEVERBAL NOUN FORMATION IN OJIBWE

This project analyzed four productive nominalizers that can be used to form deverbal nouns in Ojibwe: *-win*, *-aagan*, *-gan*, and *-n* (for a related study on Oji-Cree see Hoffman and Oxford 2021 and for Plains Cree see Giesbrecht and Lachler 2021). Since these combine with a verb to form a noun, a bit of background on verb types in Ojibwe is necessary. As summarized below, there are four classes of verb stems in Ojibwe based on transitivity and the grammatical animacy of their arguments.

(4) a. VAI: Verb Animate Intransitive (single animate subject in a sentence)

b. VTA: Verb Transitive Animate (an animate object is being acted on)

c. VII: Verb Inanimate Intransitive (single inanimate subject in a sentence)

d. VTI: Verb Transitive Inanimate (an inanimate object is being acted on)

Each of the four nominalizers show different patterns in terms of what types of verb stems they combine with. Below we present what previous work has shown in each case.

Nouns formed with -win

The first type of deverbal nouns are formed with the nominalizer -*win* (Nichols 1980:81, Bloomfield 1958, §11.52). Giesbrecht and Lachler (2021) investigated nouns formed by a similar nominalizer in Plains Cree and found that -*win* rarely forms deverbal nouns from inanimate verb stems such as VTIs (roughly 17% of all -*win* nouns) or VIIs (roughly 1%). Instead, -*win* most frequently combined with VAIs (56%) and VTAs (24%). They found that -*win* nominals in Plains Cree are never SEMANTIC AGENTS: the "doers" of the clause as in *play-er*, the one who plays. Instead, -*win* nominals are made up of other semantic types, such as predicates, patients, instruments, and locations. Some examples of Ojibwe -*win* nouns are given in (5).

(5)   -*win* nouns

        a.   abi-win

                be.at.home.VAI-NMLZ

                'room'

        b.   agaji-win

                be.ashamed.VAI-NMLZ

                'shame'

        c.   baapi'idiwag-win

                laugh.at.each.other.VAI-NMLZ

                'humor'

        b.   bimaadizi-win

                live.VAI-NMLZ

                'life'

        The examples in (5) demonstrate that -*win* can be used to form nouns such as *abiwin* 'room', *agajiwin* 'shame', *baapi'idiwin* 'humor', and *bimaadiziwin* 'life'. The majority of the

nouns formed by *-win* take an ABSTRACT as opposed to CONCRETE meaning, as in (5b-d)—that is,

they do not refer to physical objects. The particular abstract meaning of the deverbal noun often

reflects the essence of the meaning of the verb stem: the *-win* form of the verb *bimaadizi* 's/he

lives' is 'life', the *-win* form of the verb *agaji* 's/he is ashamed' is 'shame'. This pattern holds

across most of the *-win* nouns with some exceptions including (5a) *abi-win* 'a room'.

Nouns formed with -n

The second type of noun that this study investigates is formed with the nominalizer *-n* (Nichols

1980:78, Bloomfield 1958, §11.25). Similar to *-win* nouns, *-n* combines exclusively with

intransitive verb stems, primarily VAIs (Valentine 2001:502). Consider (6).

(6)   *-n* nouns

    a.   abwaa-n

        roast.VAI-NMLZ

        'a roast'

    b.   apishimo-n

        lie.VAI-NMLZ

        'mattress'

    c.   bimikawaa-n

        leave.tracks.VAI-NMLZ

        'footprints'

    d.   waabikwe-n

        grey.hair.VAI-NMLZ

        'grey hair'

When compared to *-win* nouns in (5), the meaning of nouns formed from *-n* shown in (6) are generally more CONCRETE. By concrete we mean that *-n* nouns tend to be INSTRUMENTS used to perform actions like *apishimon* 'mattress' or some physical RESULT or PRODUCT of performing an action as in *abwaan* 'roast', *bimikawaan* 'footprints, tracks'.

Nouns formed with -gan

The third type of noun is formed with *-gan* (Nichols 1980:77-78, Bloomfield 1958, §11.27). Such nouns are almost exclusively made from transitive verb stems, most commonly VTIs. The glosses of the verbs are thus different and reflect transitive verbs. Below are some examples of *-gan* deverbal nouns.

(7)   *-gan* nouns

      a.   aabaabika'-igan

              unlock.VTI-NMLZ

              'key'

      b.   baasaabikiz-igan

              blast.VTI-NMLZ

              'dynamite, explosives'

      c.   dibaabiishkooj-igan

              weigh.VTI-NMLZ

              'scale'

      d.   agwaakwa'-igan

              nail.VTI-NMLZ

              'poster'

Nouns formed with -*gan* are often associated with instruments or tools, such as *aabaabika'igan* 'key' (instrument of locking), *baasaabikiz-igan* 'dynamite, explosive' (instrument of explosives), or *dibaabiishkooj-igan* 'scale' (instrument of weighing). However, some nouns simply do not fit as cleanly in these semantic categories. As shown in (7d), for example, the verb stem *agwakaa'* means 'hang it up on the wall with a nail', and the noun formed from adding -*gan* is *agwaakwa'-igan* 'poster'. We faced this challenge with all the nominalizers. Instead of grouping them into semantic categories, we instead grouped them by abstract or concrete—a much clearer task.

Nouns formed with -aagan

The final type of deverbal nouns in this study are those formed with -*aagan* (Nichols 1980:80, Bloomfield 1958, §11.28). There are fewer examples of these nouns, and like nouns formed from -*gan*, they are primarily used in creating deverbal nouns from transitive stems. However, unlike -*gan*, which primarily combines with VTIs, -*aagan* combines with VTAs.

(8)   -*aagan* nouns

a.   dasoon-aagan

        trap.VTA-NMLZ

        'a trap'

b.   gikinoo'amaw-aagan

        teach.VTA-NMLZ

        'student'

c.   wiijiiw-aagan

        accompany.VTA-NMLZ

        'partner, companion'

d. nagadenim-aagan

be.familiar.VTA-NMLZ

'a friend'

Like -*igan* nouns, -*aagan* nouns are generally concrete. For example, an instrument noun like *dasoonaagan* 'trap' is something used to capture an animal, while other nouns formed with -*aagan* can be thought of as PATIENTS—the ones being acted upon by the verb stem. Patient nominalizations include *gikinoo'amawaagan* 'student' (concrete, the patient of the teaching), *wiijiiwaagan* 'partner, companion' (concrete, the patient of accompany), or *nagadenimaagan* 'friend' (the patient of being familiar with someone).

METHODS

We created a spreadsheet containing 420 Ojibwe nouns by consulting the OPD. The OPD contains partially complete lists of words formed from each of the nominalizers that we are examining, and these nouns made up the bulk of our sample. To ensure that we found all possible examples, once these lists were exhausted, we used the advanced search function to look for words that ended with each nominalizer. The spreadsheet entries for the nouns included detailed information about the noun, the translation, the nominalizer used, the animacy, the verb stem, the verb stem type, the verb stem composition, whether the noun was abstract or concrete, and the OPD entry link. A summary and example of the extracted information is given in Table 1. In all cases, except the abstract/concrete distinction, which is not indicated in the dictionary, we went by what the dictionary reported. Having completed this stage, we rescanned the dictionary to verify that we had not missed any entries and to ensure that all of the information was complete and accurate. We further set out to decompose some of the verb stems that appeared decomposable to us based on recognizable morphology.

<Table 1 about here>

The data from the spreadsheet was then analyzed using the R statistical environment (R Core Team 2021) in RStudio (RStudio Team 2021). For each of the nominalizers, we calculated the total number of nouns sampled from the dictionary, the percentage of nouns that were animate versus inanimate, the percentage of nouns that were abstract versus concrete, and the percentage of nouns formed from each of the four stem types (VTA, VTI, VAI, and VII). These findings are reported in Table 2 and discussed in detail in the following section.

Having consulted the dictionary and formed our generalizations, we worked with our native speaker collaborator Mr. Nayquonabe to corroborate the findings. While working with Mr. Nayquonabe, we followed the generalizations we gathered from the dictionary and generated examples to test these generalizations against native speaker collaborator data and judgements.

The fieldwork was conducted over Zoom between January and June of 2021. We recorded audio and video for each session and transcribed the data elicited with Mr. Nayquonabe. For each noun, we elicited the singular form, plural form, and noun with a demonstrative because Ojibwe shows animacy agreement on the plural marker and demonstrative.

RESULTS

In this section we present the results of our dictionary survey, summarized in Table 2.

<Table 2 about here>

Of the 420 nouns collected, 136 examples were formed with -*gan*, 94 were formed with -*n*, 170 were formed with -*win*, and 20 were formed with -*aagan*. The majority (90%, n=378) of the nouns were inanimate and the majority (64.5%, n=271) were formed from VAI verb stems. The relationship between the nominalizer and the output noun's animacy is most clear with -*win*,

where 97.8% (n=166) of -*win* nominals are inanimate. The other nominalizers showed more variation in the animacy of the output noun. For example, 9.6% of -*gan* nouns are animate (n=13), and 16% of -*n* nouns were animate (n=15). The only nominalizer that had majority animate nouns was -*aagan*, where 60% of nouns were animate (n=12).

The relationship between nominalizer and the transitivity of the verb stem was more clear cut. Both -*gan* and -*aagan* primarily paired with transitive verb stems (VTA,VTI). More precisely, -*gan* combined with transitive VTAs and VTIs 98.5% of the time (n=134) and VAIs only 1.5% of the time (n=2). Meanwhile, -*n* combined with VAIs 100% of the time (n=94). -*win* was combined with VAIs 99.4% of the time (n=169) and only 0.6% with VIIs (n=1). While most deverbal nouns found in the dictionary are concrete (68%, n=285), -*win* largely formed abstract nouns with 75% (n=128) of -*win* nouns being abstract. Across the board, we see that the most common verb stem for deverbal nouns in Ojibwe is VAI (64.5%, n=271), with VTI the second most common (32.1%, n=134). VTA and VII appeared with much smaller frequency, with only 3.1% (n=13) of deverbal nouns being formed from VTAs and 0.2% (n=1) with VIIs.

From the patterns observed in this data set, we extract three major generalizations about deverbal noun formation: i) Ojibwe disallows VII stem nominalizations, ii) deverbal nouns in Ojibwe formed with these nominalizers cannot denote agents, and iii) the deverbal noun animacy is not always directly tied to which nominalizer was used. Below, we support these generalizations with native speaker judgments elicited with Mr. Nayquonabe.

Inanimate verb stems (VIIs)

In line with Giesbrecht and Lachler's (2021) survey of -*win* nominalizations in Plains Cree, our data reveal that Ojibwe has a strong dispreference against deverbal nouns formed from VII stems. The authors' research found that only 1% (n=6) of -*win* nouns in Plains Cree were

formed from VII stems. Of the 420 deverbal nouns surveyed here, only one noun in the entire

data set was formed from a VII verb stem: *gizhaatewin* 'heat, hot weather'. We consider this to

be a genuine exception to an otherwise robust generalization that Ojibwe speakers do not

nominalize VII stems with any of the nominalizers presented here—expanding the conclusion of

Giesbrecht and Lachler's (2021) to include *-gan*, *-aagan*, and *-n* in addition to *-win*. To

corroborate this generalization, we created a list of VII verb stems and combined them with *-win*.

We then consulted with our native speaker collaborator, Mr. Nayquonabe, for his acceptability

judgments.

For each example we first confirmed that Mr. Nayquonabe was familiar with the meaning

of the VII stem. We then presented him with the VII+*win* form to ask i) whether it was a

meaningful word in Ojibwe and ii) what exact meaning it conveys. To summarize the results,

Mr. Nayquonabe struggled to attribute any meaning to these words. While he could squeeze out

the same meaning as the underlying verb, these VII+-*win* "nouns" are not valid words in Ojibwe

and are certainly not nouns.

Taking a step back to unpack this finding, overall, deverbal nouns formed from VAIs

with *-win* adopt a variety of meanings (Giesbrecht and Lachler, 2021), but they generally reflect

the essence of the verb stem. For example, consider the three VAI deverbal nouns in (9).

(9)   VAI + -*win*:

    a.   *gimoodi* 's/he steals' → *gimoodi-win* 'theft'

    b.   *ikwewi* 's/he is a woman' → *ikwewi-win* 'womanhood'

    c.   *debwe* 's/he tells the truth' → *debwe-win* 'truth'

The deverbal noun meanings in (9) reflect the essence of the original verb stem. By

nominalizing *gimoodi* 's/he steals' it becomes *gimoodi-win* 'theft', the concept or the act of

stealing. By nominalizing *ikwewi* 's/he is a woman' it becomes *ikwewi-win* 'womanhood', the essence of being a woman. By nominalizing *debwe* 's/he tells the truth', it becomes *debwe-win* 'truth', the essence of telling the truth. If the VII verbs pattern like the VAI verbs when nominalized with -*win*, their expected meaning should be similar.

VII verbs are used to describe inanimate things: *miskwaa* 'it is red', *agaasaa* 'it is small', or *abawaa* 'it is warm (weather)'. Consider the following four VII stems and their anticipated nominalized meanings in (10).

(10)   VII + -*win* (anticipated meanings):

      a.   *miskwaa* 'it is red' → *miskwaa-win* 'redness/red'

      b.   *agasaa* 'it is small' → *agasaa-win* 'smallness'

      c.   *abawaa* 'it is warm (weather)' → *abawaa-win* 'warm (weather)'

When we presented Mr. Nayquonabe with VII+-*win* forms, he indicated that there is little to no difference in meaning between the VII stem alone and the invented deverbal form. He repeatedly described it as 'describing the thing' which is what the bare verb already does. Consider the example *miskwaa* 'it is red' in (11), which might be expected to mean 'redness' when -*win* is added, as in (12).[3]

(11)   mɪskwɑː

        red.VII

        'it is red.'

(12)   mɪskwɑː-wɪn

        red.VII-NMLZ

        Forced meaning: 'it is red.'

Instead, Mr. Nayquonabe indicated that this form carries the same meaning with or without the added -*win*: it is describing something that is red, not necessarily the property of being red. As an example, he provided: "an Ojibwe speaker might say *miskwaa-win* when describing somebody's house but it does not clearly mean 'redness' or the essence of being red." Other examples come from verbs like *agaasaa* 'it is small' (13) whose nominalized form in (14) we might expect to mean 'smallness', or the property of being small.

(13) agɑsɑː

   small.VII-NMLZ

   'it is small.'

(14) agɑsɑː-wɪn

   small.VII-NMLZ

   Forced meaning: 'it is small.'

Instead, Mr. Nayquonabe said that the -*win* does not change the meaning, it still carries the meaning of the VII stem. Mr. Nayquonabe mentioned that he had heard (14) in the past but it is not something he would say. These data add support to the generalization abstracted from the dictionary survey that Ojibwe VIIs are not viable candidates for deverbal noun formation.

Meaning and nominalization

In Ojibwe, just as in Plains Cree (Giesbrecht and Lachler, 2021) and other languages, nouns are classified into different semantic categories depending on what entity or property they pick out in the natural world. A noun such as *akik* 'pail' falls into the category of instruments, *bimikawaan* 'footprints, tracks' might be considered a result deverbal noun, and *gikinoo'amaagewinini* 'teacher' falls into the category of agents. Sometimes, these categories are associated with particular nominalizing morphology as in the productive AGENTIVE NOMINALIZER -*er* in English:

kick+-er → kicker. Cross-linguistically these agentive nominalizers are somewhat common, i.e. the French *-euse/-eur* as in *nettoyer* 'to clean' → *nettoyeuse* 'cleaner (fem.)', *nettoyeur* 'cleaner (masc.)' the Spanish *-ador*(a) as in *trabajar* 'to work' → *trabajadora* 'worker (fem.)' or *trabajador* 'worker (masc.)', etc. Semantic agents are the "doers" of a sentence or verb and cross-linguistically, agentive nominalizations are rather common.

Based on the dictionary data and our fieldwork, it appears that semantic agents cannot be formed by the four nominalizers in Ojibwe. These findings align with those in Plains Cree outlined in Giesbrecht and Lachler (2021), who found that deverbal nouns formed with *-win* in Plains Cree cannot denote agents.[4] For example, in Ojibwe, when the verb *odamino* 's/he plays' is nominalized the resulting noun is 'doll': the thing played with. Meanwhile, one of the deverbal nouns of the verb *play* in English is *play-er*, "the one playing". None of the following deverbal noun data from Ojibwe create agent nominalizations (English counterparts given for contrast).

(19) a.   *akwaandawe* 'they (SG,ANIM) climb' → *akwaandaw-aagan* 'ladder': instrument

       b.   'climb' → 'climb-er': agent

(20) a.   *adaawaage* 'they (SG,ANIM) sell' → *adaawaaga-n* 'something for sale, merchandise': product

       b.   's/he sells' → 'seller': agent

(21) a.   *biindaagibagizo* 'they (SG,ANIM) do a hoop dance' *biindaagibagizo-win* 'a hoop dance': result

       b.   's/he does a hoop dance' → 'a hoop dancer': agent

(22) a.   *baasaabikiz* 'they (SG,ANIM) blast h/' → *baasaabikiz-igan* 'an explosive, dynamite': instrument

       b.   'blast' → 'blaster': agent (or Instrument)

We further confirmed this pattern through our elicitation sessions with Mr. Nayquonabe: none of the nouns elicited with him are semantic agents. While there are no agentive nominals formed with these nominalizers, Ojibwe has other productive processes to form agents through i) participle formation as seen above in (1) and ii) noun compounding as seen above in (2). Consider another example of noun compounding used in the word *gikæna:ʔamage-w-enene* 'teacher' (agent, the one who teaches). Instead of nominalizing the verb 'to teach', with one of the four nominalizers, Mr. Nayquonabe adds *w-inini* 'man'.

(23)   gikæna:ʔamage-w-enene

        teach.VAI-COMP-man

        'teacher (masc)'

In the process of identifying the lack of semantic agents, we noticed an interesting pattern related to the semantics of deverbal nouns: certain nominalizers appear to be related to forming either abstract or concrete nouns. We found that *-win* is largely associated with abstract nouns and *-n, -igan*, and *-aagan* are associated with concrete nouns. In fact, less than 2.5% of *-gan* (n=3), 2.5% of *-n* (n=2), and 5% (n=1) of *-aagan* nouns were abstract but a majority 75% of *-win* (n=128) nouns were abstract.

Deverbal noun animacy

In our analysis we found that most of the nouns (90%, n=378) were inanimate, while 10% (n=42) were animate. The breakdown of animacy within each type of nominalizer shows that *-win* had the strongest relationship with a particular animacy as only 1.2% (n=2) of the deverbal nouns were animate. Compare that to *-aagan*, which patterns most strongly with animates as 60% (n=12) are animates.[5] The *-igan* and *-n* nominals share similar animacy distributions: 9.6% of nouns formed with *-igan* are animate, whereas 16% of *-n* nouns are animate. While working

with Mr. Nayquonabe, we consistently elicited both the plural and demonstrative forms of each of the nouns to determine the animacy. For the most part, his judgments pattern like the dictionary in the sense that the majority of the nouns are inanimate.

DISCUSSION

Having presented in detail the results from the dictionary sample and native speaker judgments, we turn now to consider some of the extensions and complications with the presented analysis, particularly with respect to the syntactic structures that underlie deverbal noun formation. We consider the possibility that the nominalizers are internally complex and the consequences of the patterns of animacy for current theories of the relationship between noun class assignment and nominalization.

Decomposition and the structure of nominalization

So far we have treated the four nominalizers *-gan*, *-win*, *-aagan*, and *-n* as single morphemes— this follows the classification scheme used in the OPD. In this section, we show that these nominalizers have internal complexity.

Following Valentine (2001:502) for Nishnaabemwin and Nichols (1980:78) for Mille Lacs Ojibwe, we adopt the view that the nominalizer *-gan* is in fact built from the combination of a detransitivizing morpheme *-ge* and the nominalizer *-n*.[6] While not discussed by either Nichols or Valentine, we further extend this proposal to *-aagan*, which differs only in *-gan* in the presence of the *-aa* augment morpheme.[7] The proposed breakdowns are outlined in (24).

(24)　　*a. -gan = -ge + -n*

　　　　b. -aagan = -aa + -ge + -n

With this, we can move towards a more precise characterization of nominalization and an explanation of why *-gan* and *-aagan* appear to overwhelmingly nominalize transitive verbs,

while -*n* (and -*win*) only nominalizes intransitives: in fact, only intransitive verbs, and more particularly animate intransitive verbs (i.e. VAIs), can be the stem for a deverbal noun. Any apparent cases of deverbal noun formation with VTI and VTA stems are better described as first undergoing a process of detransitivization with -*ge*, which decreases the valency of the verb by eliminating the internal argument or patient, creating a VAI. This is followed by nominalization proper with the addition of -*n*. This two-step process is outlined in (25) for the deverbal noun *bakite'igan* 'hammer'.

(25)　a.　　VTI Stem: *bakite'* 'They (SG,ANIM) strike/hit it (INAN)'

　　　b.　　VAI formation via -*ge* → *bakite'ige* 'They (SG,ANIM) strike/hit'

　　　c.　　Nominalization via -*n* → *bakite'igan* 'hammer (INAN)'

This breakdown gives rise to a critical question of why 30% (n = 5) of deverbal nouns formed from -*aagan* should have a VAI stem—these stems are already VAIs, and should not have to undergo detransitivization in order to be nominalized. In other words, it should be possible to directly form deverbal nouns by the addition of -*n* and the absence of -*ge*. While our analysis remains tentative, we note the conspicuous fact that one of the five stems (*mimigoshkam* 'They (SG, ANIM) threshes something') is labelled in the OPD as a VAI+O—a VAI stem that can take objects and inflect with transitive morphology—and the other four, shown in (26), all appear to have meanings that include implicit objects.[8]

(26)　a.　　*odamino* "They (SG,ANIM) play"; *odaminwaagan* "doll (ANIM)"

　　　b.　　*ziko* "They (SG,ANIM) spit"; *zikwaagan* "spitoon (INAN)"

　　　c.　　*agoodoo* "They (SG,ANIM) hang a snare"; *agoodwaagan* "snare (INAN)"

　　　d.　　*akandoo* "They (SG,ANIM) lie in wait for game"; *akandoowaagan* "hunting stand (INAN)"

While we have followed the OPD in our classification of each of these stems, we note the possibility that *odaminwaagan* "doll ANIM" is in fact formed by the addition of the nominalizer -*n* to the VAI+O stem *odaminwaage* "They (SG,ANIM) play with something as a toy", which is formed from the VAI *odamino* by the addition of the VAI+O final -*aage*.[9] Indeed, despite the fact that Goddard (1990:473-474) asserts that -*aagan* may be a single morpheme, and therefore non-complex, we acknowledge the possibility that there are intermediate VAI+O derivations for all of these forms, as seen with *odamino.*

Turning now to -*win*, the temptation may arise to decompose it into two parts: our familiar nominalizer -*n* and a morpheme -*wi*. At present, it is not at all clear that such an analysis is warranted, in accordance with Bloomfield (1946:106), Bloomfield (1958:68), and Goddard (1990:472), who all stipulate that there is no synchronic morpheme boundary. While -*wi* is indeed a common morpheme in Ojibwe, its general function is denominal verb formation—in particular, taking a noun and turning it into a verb of being (Valentine, 2001:363). This is inconsistent with the current context of deverbal noun formation. To our knowledge, there is no other plausible analysis of -*wi* within this context, so we treat -*win* as a nominalizer in its own right, with no direct derivational relationship to -*n*, (and by extension, -*aagan* and -*gan*). This split between deverbal nouns formed from -*n* versus -*win* is further supported by broad semantic differences that arise between the deverbal nouns in each case: the majority of deverbal nouns formed by -*win* denote abstract concepts, while the majority of nouns formed by -*n* denote concrete objects or beings.

Animacy and the structure of nominalization

We situate our analysis of the structure of deverbal noun formation within the framework of Distributed Morphology (DM; e.g. Halle and Marantz 1993, 1994; Marantz 1997, 2001). One of

the major tenets of the theory is the idea that the familiar categories "noun" and "verb" are derived—there are no elements that are directly stored in the lexicon as nouns or verbs. Nouns and verbs are formed when an abstract, categoryless root ($\sqrt{}$) combines with a nominalizer *n* ("little n") or a verbalizer *v* ("little v"). These category-forming heads from DM can be linked to the verb and noun forming final morphemes (Brittain 2003; Mathieu 2014).

Homing in on the nominalizing heads, previous work within DM has argued that *n* is responsible not only for creating nouns from roots or verb stems, but also for introducing noun class features (Kihm 2005; Kramer 2014, 2015; Hammerly 2019). Following this proposal, we might assume there should be a close relationship between the use of a particular nominalizer (i.e. -*win* or -*n*) and the animacy or grammatical gender of the deverbal noun. In other words, each type of *n* head might be expected to be exclusively associated with either the animate or inanimate class.

The results of the current study reveal a mixed result here. With -*win* only 1.2% (n=2) of the deverbal nouns were grammatically animate—the overwhelming majority were classified as inanimate. This result is consistent with the observations of Valentine (2001) for Nishnaabemwin and Giesbrecht and Lachler (2021) for Plains Cree, and supports a strong (though not absolute) relationship between noun class and nominalizing morphology. In contrast, the nominalizations formed from -*n*, -*gan*, and -*aagan* were more mixed. All told, 16% (n=40) of the nouns in this group where inanimate—a minority to be sure, but difficult to classify as purely exceptional. This raises the question, left to future work, of how to reconcile the present findings with the theory that *n* introduces not only a noun-forming function, but also a particular noun class.

There are two observations that further hem in this eventual account of noun class assignment in Ojibwe. First, with limited exceptions, the best predictor of noun class in Ojibwe

is whether the referent of the noun is living or non-living (see Dahlstrom WXYZ and Goddard 2002). In other words, it appears that noun class in Ojibwe is almost entirely semantic in the sense of Corbett (1991). Second, there is no relationship between the "animacy" of the underlying verb stem (i.e., whether it is a VAI/VTA versus VII/VTI stem) and the deverbal noun animacy. Again, this is in line with previous observations by Valentine (2001) and Giesbrecht and Lachler (2021).

CONCLUSION

This paper set out to identify restrictions in the deverbal noun formation process in Ojibwe. Through an extensive dictionary survey, we identified three major restrictions: i) VII verb stems cannot be nominalized, ii) there are no semantic agents formed from these nominalizers, and iii) the grammatical gender of the noun is not directly tied to which nominalizer was used. Native speaker judgments elicited through fieldwork were used to verify and support the accuracy and strength of these restrictions. This investigation broadens our knowledge of how nouns are formed in Ojibwe and ultimately in languages as a whole. Based on these three generalizations and our findings presented here, there are countless avenues for further research. We highlight two particularly puzzling questions: i) why are VIIs immune to nominalization (or, why do only VAIs serve as the stems for deverbal nouns) and ii) how exactly is grammatical gender determined in Ojibwe deverbal nouns? Other avenues of future research may involve a deep analysis of deverbal nouns in other dialects of Ojibwe or related languages in the Algonquian family to see if these patterns hold.

REFERENCES

Bloomfield, Leonard. 1946. Algonquian. *Linguistic Structures of Native America*, ed. by Harry Hoijer, pp. 85–129. New York: Viking Fund Publications in Anthropology.

Bloomfield, Leonard. 1958. *Eastern Ojibwa: Grammatical Sketch Texts, and Word List*. Ann Arbor: University of Michigan Press.

Brittain, Julie. 2003. A Distributed Morphology Account of the Syntax of the Algonquian Verb. *Proceedings of the 2003 Annual Conference of the Canadian Linguistic Association*, ed. by Sophie Burelle and Stanca Somesfalean, pp. 26–41. Toronto: Canadian Linguistic Association.

Corbett, Greville G. 1991. *Gender*. Cambridge: Cambridge University Press.

Dahlstrom, Amy. WXYZ. Meskwaki Syntax. Ms., University of Chicago.

Giesbrecht, Lex, and Jordan Lachler. 2021. Nominalization Strategies in Plains Cree: An Analysis of the *-win* Suffix. *Papers of the 50th Algonquian Conference*, ed. by Monica Macaulay and Margaret Noodin. East Lansing: Michigan State University Press.

Goddard, Ives. 1990. Primary and Secondary Stem Derivation in Algonquian. *International Journal of American Linguistics* 56:449–483.

Goddard, Ives. 2002. Grammatical Gender in Algonquian. *Papers of the 33rd Algonquian Conference,* ed. by Christoph Wolfart, pp.195–231. Winnipeg, Manitoba. University of Manitoba.

Halle, Morris, and Alec Marantz. 1993. Distributed Morphology and the Pieces of Inflection. *The View from Building 20*, ed. by Kenneth Hale and Samuel Jay Keyser, pp. 111–176. Cambridge, Massachusetts: MIT Press.

Halle, Morris, and Alec Marantz. 1994. Some Key Features of Distributed Morphology. *MIT Working Papers in Linguistics 21*, ed. by Andrew Carnie and Heidi Harley, with Tony Bures, pp. 275–288. Cambridge, MA: MIT.

Hammerly, Christopher. 2019. Limiting Gender. *Gender and Noun Classification*, ed. by Éric

    Mathieu, Myriam Dali, and Gita Zareikar, pp. 93-118. Oxford: Oxford University Press.

Hoffman, Sarah, and Will Oxford. 2021. Derivational Functions of Theme Signs in Oji-Cree.

    Papers of the 50th Algonquian Conference, ed. by Monica Macaulay and Margaret

    Noodin, pp. 135–153. East Lansing: Michigan State University Press.

Kihm, Alain. 2005. Noun Class, Gender, and the Lexicon-Syntax-Morphology Interfaces: A

    Comparative Study of Niger-Congo and Romance languages. *The Oxford Handbook of

    Comparative Syntax*, ed. by Guglielmo Cinque and Richard S. Kayne, pp. 459–512.

    Oxford: Oxford University Press.

Kramer, Ruth. 2014. Gender in Amharic: A Morphosyntactic Approach to Natural and

    Grammatical Gender. *Language Sciences* 43:102–115.

Kramer, Ruth. 2015. *The Morphosyntax of Gender: Evidence from Amharic*. Oxford: Oxford

    University Press.

Livesay, Nora, and John Nichols. 2022. *The Ojibwe People's Dictionary*.

    https://ojibwe.lib.umn.edu.

Marantz, Alec. 1997. No Escape from Syntax: Don't Try Morphological Analysis in the Privacy

    of Your Own Lexicon. *University of Pennsylvania Working Papers in Linguistics* 4.2, ed.

    by Alexis Dimitriadis, Laura Siegel, Clarissa Surek-Clark, and Alexander Williams, 201–

    225. Philadelphia, PA: University of Pennsylvania.

Marantz, Alec. 2001. Words. *20th West Coast Conference on Formal Linguistics*, ed. by Karine

    Megerdoomian and Leora Anne Bar-el, pp. 23–25. University of Southern California.

Mathieu, Eric. 2014. Nominalizations in Ojibwe. In Cross-linguistic Investigations of
Nominalization Patterns, ed. by Ileana Paul, pp. 3–24. Amsterdam: John Benjamins
Publishing Company.

Nichols, John. 1980. Ojibwa morphologyMorphology. Doctoral DissertationPhD thesis, Harvard
University.

R Core Team. 2021. R: A Llanguage and Eenvironment for Sstatistical Ccomputing. R
Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

RStudio Team. 2021. RSstudio: Integrated Ddevelopment Eenvironment for Rr. RStudio, PBC.,
Boston, MA. URL http://www.rstudio.com/.

Sullivan, Michael D. 2016. Relativization in Ojibwe. PhD thesisDoctoral Dissertation,
University of Minnesota.

Valentine, J. Randolph. 2001. Nishnaabemwin Reference Grammar. Toronto: University of
Toronto Press.

Wolfart, Christoph. 1973. Plains Cree: A Ggrammatical Sstudy. Transactions of the American
Philosophical Society 63:1–90.

---

and Swedish descent and grew up on Dakota and Ojibwe lands in Minnesota. He is currently a PhD student at the University of California, Los Angeles. Hammerly is a mixed Anishinaabe-Norwegian man and a descendent of the White Earth Nation in Minnesota who grew up on Dakota lands and currently lives on Musqueam lands. He is an Assistant Professor of Linguistics at UBC.

[2] We follow Leipzig glossing conventions with the addition of the following abbreviations: ANIM = animate, COMP = compounding morpheme in Algonquian, h/ = his or her, INAN = inanimate, NMLZ = nominalizer, VAI = Verb Animate Intransitive, VII = Verb Inanimate Intransitive, VTA = Verb Transitive Animate, VTI = Verb Transitive Inanimate.

[3] Examples including data elicited with Mr. Nayquonabe are represented with a broad transcription using the International Phonetic Alphabet. Examples including dictionary data are represented using the double vowel orthography as reported in the OPD.

[4] As mentioned above, the focus of this study and that of Giesbrecht and Lachler (2021) is nouns formed with particular nominalizers. As with Ojibwe, speakers of Plains Cree have their own way of forming deverbal agent nouns. (Wolfart 1973:69) shows that the *-w* morpheme may be used for creating agent nouns and (Goddard 1990:473) shows that this is a general pattern diachronically, but not synchronically, in Algonquian. While both Ojibwe and Plains Cree have ways of forming deverbal agent nouns, these nominalizers cannot be used to do so.

[5] This is likely because *-aagan* forms deverbal nouns from VTA verbs which implicitly have an animate patient.

[6] For additional discussion, see Mathieu (2014), Bloomfield (1946:106), Bloomfield (1958:66), and Goddard (1990) for specific analyses of the composition of *-igan*.

[7] However, Bloomfield (1958:67) proposes that *-a:kan* consists of *-kan* with prefinal *a:-*. In addition, see Goddard (1990:473) for a diachronic analysis of the composition of *-aagan*; however, as Goddard (1990:474) admits, this is likely not the synchronic analysis.

[8] As a helpful reviewer pointed out, there is only explicit evidence that *mimigoshkam* "They (SG,ANIM) threshes something" is a VAI+O verb stem, this may be an easy analogy for speakers to make to other VAI+O verb stems.

[9] https://ojibwe.lib.umn.edu/word-part/aage-final.