Noun Composition in Mille Lacs Ojibwe

Hunter Johnson (UCLA) & Chris Hammerly (UBC)

Our question

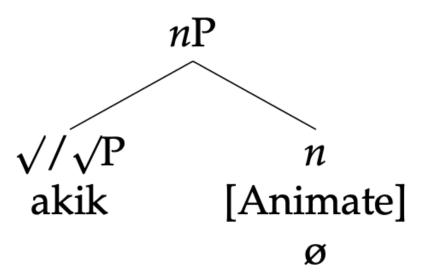
- Some nouns in Ojibwe are simply nouns:
- akik (pail)
- anishinaabe (an Ojibwe)
- While other nouns are derived from verb stems:
- odaminw-aagan (doll)
- bakwezh-igan (bread)
- anishinaabemo-win (Ojibwe languages)
- ziinikiigomaa-n (snot)

What restrictions, if any, exist in the noun making process of Ojibwe?



Recap of nominalization

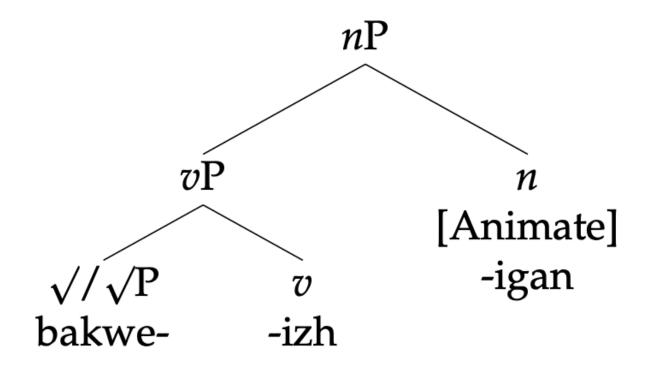
- By nominalization here we mean the process by which you turn something of another category into a noun.
- Distributed Morphology (DM). This project looks at how verb stems are nominalized in Ojibwe.
- 2015).



Sample derivations of *akik* 'pail' and *bakwezhigan* 'bread'.

• This can be roots, verb stems, or something else and this idea is consistent with

• *n* also introduces gender, which in Ojibwe is expressed as animacy (Kramer 2014,





Ojibwe nominalization

- There are also different types of nominalization. For example, you can nominalize things into Agents, Instruments, Results, etc.
- hunt-er = Agent of the verb 'hunt'
- giiyose-winini = hunt-man Agent of 'hunt'
- Giesbrecht and Lachler (2021) provide a detailed account of the semantics of -win nominalizations in Plains Cree.
- Their study showed that the -win nominalizer is able to form various semantic types of nouns from verb stems.
- We will see if their findings also hold for Ojibwe.



Roadmap

- Introduce nominalizers Ojibwe speakers use to nominalize verb stems • Identify 3 restrictions discovered from data in the Ojibwe People's Dictionary
- Compare findings to fieldwork data and native speaker judgements
- Lingering questions and discussion



Breaking down the nominalizers in Ojibwe

- used to turn verb stems into nouns in Ojibwe.

• This study focused on the -win, -n, -(i)gan, and -aagan nominalizers which are all

• For the sake of this presentation, we're going to treat all of these as separate but in the discussion we will bring up the idea that they may be built up off of each other.



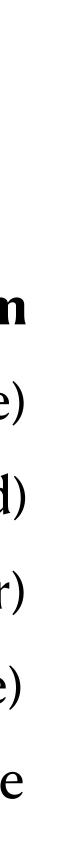
- Giesbrecht and Lachler (2021) looked at the -win nominalizer in Plains Cree.
- to Manner, Time, Predicate, Result, Location, Patients etc. but not Agents.
- Noun
- abi-win = room
- agaji-win = shame
- baapi'idi-win = humor
- bimaadizi-win = life
- -win nouns tend to mean the essence or -ness of the verb stem meaning, or: "the meaning of these [-win] nouns is often the same as the meaning of the verbs from which they were derived." (Ahenakew 1987: 165) on Plains Cree -win nouns.



• They found that -win cannot be used to form a semantic Agent but it can form nouns pertaining

Verb Stem

- (s/he is at home)
- (s/he is ashamed)
- (they laugh at each other)
 - (s/he is alive)



- -n nouns are often associated with Instru abstract things.
- -n generally combines with VAI stems.
- Noun
- abwaa-n = roast
- apishimo-n = mattress
- bimikawaa-n = a footprint, track
- waabikwaa-n = a grey hair
- Notably different from -win nouns, these seem more concrete and less abstract.

-11

• -n nouns are often associated with Instruments or Results, but can also refer to some

Verb Stem

- (s/he roasts)
- (s/he lies on something)
 - (s/he leaves a track)
 - (s/he has grey hair)





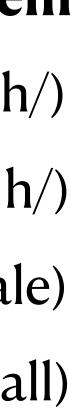


- -(i)gan is commonly used to form nouns pertai some process of doing something.
- -(i)gan generally combines with VTA stems.
- Noun
- aabaabika'-igan = key
- baasaabikiz-igan = dynamite, explosives
- dibaabiishkooj-igan = a scale
- agwaakwa'-igan = poster
- These semantic types don't hold perfectly, but generally **-igan** is associated with locations or processes of other more concrete types of nouns.

• -(i)gan is commonly used to form nouns pertaining to some location where something is done or

Verb Stem

- (s/he unlocks h/)
 - (blast h/)
- (s/he weighs h/ on a scale)
- (nail h/ up against the wall)





- Finally we have -aagan which forms similar types of nouns as -(i)gan.
- -aagan generally combines with VTA stems, like -(i)gan.
- Noun
- dasoon-aagan = a trap
- gikinoo'amaw-aagan = student
- wiijiiw-aagan = a partner, companion
- nagadenim-aagan = a friend

-aagan

Verb Stem

(trap h/)

(teach it to h/)

(go with, accompany h/)

(be familiar with h/)

• The meaning of **-aagan** nouns are also typically more concrete like the **-(i)gan** nouns.





Ojibwe People's Dictionary findings

Noun	Translation	Nominalizer	Animacy	Stem	Stem meaning	Stem verb type	Stem composition	Semanti type
bakwezhigan	bread	-igan	Animate	bakwezh	cut a piece of h/	VTA	bakwe-piece out of something, missing a piece; /- izhw/ act on h/ by blade	
odaminwaagan	doll	-aagan	Animate	odamino	s/he plays	VAI	N/A	Instrume
ziinikiigomaan	snot	-n	Animate	ziinikiigome	S/he blows h/ nose	VAI		Product
gikaawin	old age	-win	Inanimate	gikaa	s/he is old	VAI		





Generalizations

Nominalizer	# of nouns	verb stems	% animate	% inanimate
-win	99	VAI	2%	98%
-n	88	VAI	17%	83%
-igan	25	VTA	15%	85%
-aagan	21	VTA	66%	34%
Totals	242		14%	86%





Inanimate verb stems

• You cannot nominalize an inanimate stem in Ojibwe

- The single exception is *gizhaate-win* `heat, hot weather': formed from the VII stem *gizhaate* 'it is hot'.
- In Plains Cree, however, Giesbrecht and Lachler's study showed that about 30% of data they gathered from a dictionary were were VII or VTIs.
- However, after removing duplicates and sorting through the data, they found that only about 17% were formed from VTIs and VIIs. Only 1% were VII's.
- So it seems both **Plains Cree** and **Ojibwe** highly dislike nominalizing inanimate verb stems .
- In both languages, VII's seem extremely dispreferred in nominalizations.

13

No semantic Agents

• You cannot form semantic Agents in Ojibwe with -win, -n, -(i)gan, or -aagan.

- them from verb stems, but rather that these nominalizers are not able to form them.
- nominalizers cannot be used to form semantic Agents.
- hunt-er = Agent of the verb 'hunt'
- giiyose-winini = hunt-man Agent of 'hunt'
- But what about a verb like 'play'?
- play-er = Agent of the verb 'play'
- odamino-aagan = 'doll' Instrument of verb play?

• This is not to say that there are no semantic Agent nouns in Ojibwe or that you cannot derive

• Along with Giesbrecht and Lachler (2021), the dictionary data on Ojibwe suggests that these



Animacy variation within nominalizers

• The grammatical animacy of the result noun is not directly tied to the nominalizer used

Noun	Meaning	Nominalizer	Animacy
ataadi-win	a playing card	-win	Animate
gagwaadagitoo-win	hard time, suffering	-win	Inanimate
mikwamiikaa-n	cut ice	-n	Animate
gijipizo-n	a belt	-N	Inanimate
bakwezh-igan gashkaabika'-igan	bread	-igan	Animate
	a lock	-igan	Inanimate
odaminw-aagan	doll	-aagan	Animate
zikw-aagan	Spitoon	-aagan	Inanimate

15

Animacy variation within nominalizers

nominalizer:

Nominalizer	%Animate	%Inanimate	
-win	2	98	
-n	17	83	
-(i)gan	15	85	
-aagan	66	34	
Totals	14	86	

• Here's another table to demonstrate the variation of animacy within each type of





Fieldwork with Joe Nayquonabe

- Ojibwe.
- semester with this grant money.
- each generalization holds with native speaker judgements.

• Our native speaker collaborator is Joe Nayquonabe from the Mille Lacs Band of

• Joe was an absolute joy to work with. I first had the chance to work with him in **Claire Halpert**'s field methods course and I collaborated with him for another

• With each generalization we'll introduce how we tested it in the field and whether



- **bimaadizi-win** = life.
- judgements we could get. Then, we tried the VIIs + -win.

VII stem	meaning	+win	intended meaning
miskwaa	'it is red'	miskwaa-win	redness
dibikaa	'it is dark'	dibikaa-win	darkness
agaasaa	agaasaa 'it is small'		smallness
aabawaa	ʻit is warm (weather)'	aabawaa-win	warmth

• -win nominals often take the meaning of the essence or -ness of some verb stem like

• Drafted a list of VII stems to see if Joe had heard them, were acceptable, or any



For each example we tried to make for Joe, he said that either 1) he had not heard it,
2) you would need something in addition to it, or 3) a flat-out 'no' that's not acceptable.

VII stem	meaning	+win	intended meaning	Judgement
miskwaa	'it is red'	miskwaa-win	redness	*
dibikaa	'it is dark'	dibikaa-win	darkness	*
agaasaa	'it is small'	agaasaa-win	smallness	*
aabawaa	'it is warm (weather)'	Aabawaa-win	warmth	*

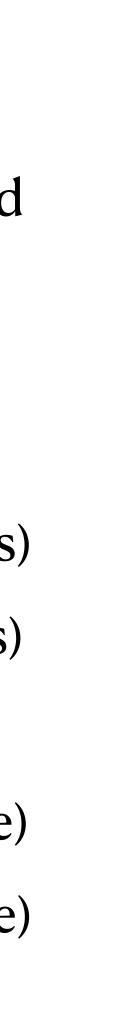


- a noun in a clause like I (don't) like X where we really expect to find a noun.
- Joe said he would accept them *if* you added something.
- I provided Joe with:
- ??niminwendan ishpaa-win
- ??gaawiin niminwendasin isphaa-win
- Which he both said would make a lot more sense with something in addition and he gave us:
- (gaawiin) niminwenda(si)n isphaa-win wakaigan
- niminwendan giinaa-win mookoman

• We tested a few interesting examples towards the end of our sessions where we attempted to embed

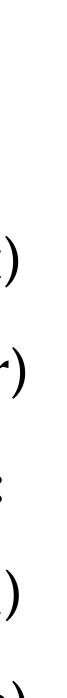
(intended: I like height, heights) (intended: I don't like heights) (I (don't) like the tall/high house) (I like the sharp knife)





- These acceptability judgments were not the same for the VII+-win gizhaate-win.
- Joe had no problem with:
- (intended: I like hot weather/heat) (intended: I don't like hot weather) (I like (that) it is tall/high) (I don't like (that) it is tall/high)
- niminwendan gizhaate-win • gaawiin niminwendasin gizhaate-win • He had no problem with the -winless forms of the examples from the previous slide: • gaawiin niminwendasin isphaa
- niminwendan ishpaa





Semantic Agents with Joe

- The four nominalizers are unable to form semantic Agents.
- Out of all of our fieldwork data on nouns we found one potential exception `student'.
- Joe gave us:
- Noun
- gikinoo'amaw-aagan = student
- This is the most Agent-y noun that we elicited from Joe.
- These findings align with those in Plains Cree from Giesbrecht and Lachler (2021) and is another similarity between the noun formation processes of Ojibwe and Plains Cree.

Verb Stem

(gikinoo'amaw s/he is learning)





Grammatical Animacy with Joe

- With each noun, we asked Joe what the plural and demonstrative forms were in order to determine the nouns animacy.
- Data elicited with Joe show that the dictionary pattern holds strong and there is a lot of variation in the gender of the result nouns all formed by the same nominalizer.
- Some -n nouns from Joe were animate, others inanimate. The same applies for (i)gan nouns although there were few -aagan or -win's that we didn't make.



The composition of nominalizers

- parts.
- -(i)gan = -ige + -n
- aagan = aa (augment, Valentine 2001) + -ige + -n
- -win = -iwi + n
- For more on this, see Mathieu (2013, 2014).
- really introducing gender here?
- augment) then why do they not have the same animacy distributions?

• -n, -(i)gan, -aagan, and -win may all be the same underlying nominalizer -n but with extra

• An interesting point is that the grammatical animacy of the nouns still varies quite a bit, so is n

• Another question: why is it that if -(i)gan and -aagan are essentially the same (one has an



Questions

• Why can't you nominalize inanimate stems?

- Is it something special about animate stems or inanimate stems?
- Why can't you form semantic Agents with these nominalizers?
- One possible answer comes from the fact that Ojibwe uses other methods to form Agent nominals like relative clauses or things like the -inini marker in *giiyose-winini* 'hunter'.
- much variation within a single type of nominalizer?
- Especially if, as the previous slide mentioned, we might treat these all as the same underlying nominalizer, then why is there so much variation in the animacy of the result nouns of each?

• What about animacy and nominalizers? If *n* introduces Animacy, then why is there so



Chi Miigwech! Questions?

- Chi-miigwech to Joe Nayquonabe for being an amazing collaborator to work with. • A huge thank you to professor Claire Halpert for introducing me to Joe and to field
- methods.
- Another big thank you to professor Jean-Philippe Marcotte at the University of Minnesota for co-advising this project with Chris.
- This project was funded by a grant from the Undergraduate Research Opportunity Program at the University of Minnesota.



References

- Ahenakew (1987). Cree Language Structures, a Cree Approach. Winnipeg, Manitoba: Pemmican Publications. Giesbrecht & Lachler (2021). Nominalization strategies in Plains Cree: An analysis of the -win suffix. In
- Proceedings of the 51st Algonquian Conference.
- Kramer, R. (2014). Gender in Amharic: A morphosyntactic approach to natural and grammatical gender. Language Sciences 43:102–115.
- Kramer, R. (2015). The morphosyntax of gender: Evidence from Amharic. Oxford University Press. • Mathieu, E. (2013). Denominal verbs in Ojibwe. International Journal of American Linguistics, 79(1), 97-132. • Mathieu, E. (2014). Nominalizations in Ojibwe. Cross-linguistic investigations of nominalization patterns,
- 210, 3-24.
- Ojibwe People's Dictionary. (2021). Ojibwe People's Dictionary. https://ojibwe.lib.umn.edu/
- Valentine, J. R. (2001). Nishnaabemwin Reference Grammar. Toronto ON: University of Toronto Press.

