Grammatical nominalization in Nivaĉle

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1 Proposal[*]

- Nivacle exhibits a high frequency of 'grammatical' nominalization
- These structures often display complex internal structure
- Most of the structures do not meet much of the typological criteria for grammatical nominalization
- A diachronic hypothesis of nominalization via clause combining

2 Background on nominalization

Nominalization- common strategy for **subordination** in South American languages (van Gijn 2014)

- Virtually absent from descriptions of Mataguayan languages of the Chaco region
- Nominalized structures are often categorized into two types in the typological literature: *lexical* and *clausal /grammatical* (Comrie & Thompson 2007 [1985])/(Shibatani 2007)
1. Lexical: creation of a new lexeme (outside the scope of this paper)
2. **Clausal/grammatical:**[1] functions as an argument/ verbal complement, no lexical status
    - o In the broader syntax, **grammatical** nominalizations function as referring expressions and behave like nouns (NPs) (Shibatani 2007, Genetti et al. 2008)
    - o Degrees of morpho-syntactic adjustments from finite clause to NP

Characteristics: common properties of grammatical nominalization (Givón 2001:25)

1. verb becoming a *head noun*
2. verb acquiring nominalizing morphology
3. loss of *tense-aspect* morphology
4. loss of pronominal agreement morphology
5. subject and/or object acquiring *genitive* case-marking
6. addition of **determiners**
7. conversion of *adverbs* into *adjectives*

Function: Grammatical nominalization is often employed in clausal subordination

- e.g. complementation, relativization (Delancey 2002, Heine & Kuteva 2007)

[1] The terms Matacoan or Mataco-Mataguayan for this family are also found in the literature.

3 Language and Background

- Nivaĉle [niβaˈk̄le] (ISO 639-3: cag) is a Mataguayan language spoken in the Argentinean and Paraguayan Chaco by approximately 16,350 speakers in Paraguay (DGEEC 2012) and 553 in Argentina (ECPI, 2004).
- The data for this paper come from both *arribeño* 'Upriver' and *abajeño* 'Downriver' varieties of the larger *ribereño* 'people of the river' dialect area (Klein and Stark 1977:392).
- **Grammatical features**: predominantly VS/AVO, highly agglutinative, lack of case-marking and highly productive polyfunctional diectic determiners

4 Nivacle Determiners[2]

The Mataguayan languages display cognate sets of 'deictic' determiner proclitics (Table 1).[3]

- Nivacle determiners are firmly based on visual interpretation of the referent: four dimensions
    - i. D_1 = seen at the time of utterance
    - ii. D_2 = seen prior and not present at time of utterance (still in existence)
    - iii. D_3 = seen prior and not present at time of utterance (*not* still in existence: e.g. dead or destroyed; also used for non-visual perception)
    - iv. D_4 = never seen
- The 'unmarked' and simplest forms of the determiners are masculine singular

Table 1   **Nivacle deictic determiners***

		Seen			Never seen
		D_1	D_2	D_3	D_4
SG	Masc	*na*	*ja*	*ca*	*pa*
	Fem	*lha*	*lh-ja*	*lh-ca*	*lh-pa*
PL	+ Hum	*na-pi*	*ja-pi*	*ca-pi*	*pa-pi*
	− Hum	*na-va*	*ja-va*	*ca-va*	*pa-va*

*adapted from Fabre (2015:62)

- Determiners have a high functional load: evidential notions / 'nominal tense'[4]
- A defining morphological criterion of a noun (phrase) or determiner phrase (DP) in Nivacle is the presence of a deictic determiner (Stell (1989) and Fabre (2015a, b).[5]

(1) a.   *ja = nivaĉle*   ∅-*pitej*   b.   **nivaĉle pitej*

     D_2 = man   3.CL$_1$-be.tall

     'El hombre alto / The tall man' (The man is not seen at the time of utterance)

(2) *na＝ajôclô*   *y-i-shi*   *lha＝a'acjiyuc*
   D_1＝bird   3-be.located-LOC$_3$ D_1.F＝tree
   'El pájaro está en el árbol./ The bird is in the tree.' (I see the bird and the tree)

5 Nivacle grammatical nominalization: Structures

- Fully nominalized clauses headed by a determiner (DP)
- None of the constructions contain any nominalizing morphology in the verb
- There can be degrees of embedding within the construction that reveal further complexity
- Examining four constructions

5.1 STRUCTURE 1: [DET＝V (DP)]

- Determiner is directly cliticized to the verb (transitive or intransitive)[6]

         V   [DET$_o$＝A＝V]$_O$
(3) *ja-n-fac-ch'e*   **ca＝va＝ja-van**
   1-CISL-say-LOC$_2$ D_3-PL.NONHUM＝1-see
   'Hablo de los que vi./ I talk about, those that I saw.'

    [DET$_o$＝A-V]$_S$ V
(4) **ja＝ ja-van**   ∅-*yacut*
   D_2＝1-see   3-be.black
   'El que encontré es negro. / The one I found is black.'

Broader syntax:

- S of intransitive verb (4),(5),(6),(8), O of transitive verb (3), R of ditransitive verb (7), constituent of a copula (9)

Internal structure:

- Intransitive verb: determiner is co-referential with S argument indexed on verb (6), (7)
- Transitive verb: determiner can code either A or O argument (5) (8), and (3), (4)

         V   [DET$_A$＝A-V   DP$_o$]$_S$
(5) *y-ich*   **lh-ja＝yi-cunjan**   *ja＝nu'u*
   3-go D_2-F＝3-feed D_2＝dog
   'Se fue la que le dio de comer al perro. / The one (F) who fed the dog left.'

[6] S ＝ single argument of an intransitive verb, A ＝ most 'agent-like' argument of a transitive verb, O ＝ object of a transitive verb, R ＝ recipient of a ditransitive verb, T ＝ theme of a ditransitive verb

         V   [DET$_s$＝S-V]$_S$
(6) ∅-*pitej*   *ja ＝y-ich*
   3-be.tall D_2＝3-go
   'Es alto el que se fue. / He's tall the one that left.'

                         [DET$_S$＝S-V   ]$_R$
(7) *ja＝nivacle*   *yi-jut-ei*   *ja＝vatfin*   *ja＝pi＝∅-t-êlôi-vat-sham-'in*
   D_2-man   3-give-LOC$_1$ D_2-candy D_2-PL.HUM＝3-CISL-dance-REFL-DIR$_2$-PLU
   'El hombre le dio caramelos a los que jugaban. /
   The man gave candy to those that were playing'

    [DET$_T$＝A-V   DP$_R$]$_S$
(8) *ja＝va＝yi-jut-ei*   *ja＝pi＝taôêl-s*   ∅-*vatfin*
   D_2-PL.NONHUM＝3-give-LOC$_1$ D_2-PL.HUM＝child-PL   3-candy
   'Lo que le dio a los niños son caramelos. What he gave the kids is candy.'

        [DET$_A$＝A-V   ]
(9) *ca'aj*   **ja-pi＝y-an-shicham-c'ôya**
   COP D_2-PL.HUM＝3-put-DIR.DOWN-VEN
   'Había los que los ponían abajo. / There were those that put (them) down.'

5.2 STRUCTURE 2: [DET＝NOUN   V   (DP)]

- Can function as the S argument of an intransitive verb (10), (11), (12)
- Determiner can be coreferential with the A argument indexed on the verb (10), (12) or it can code the object of the verb (11)

        V   [DET$_A$＝*NOUN*   A-V   DP$_o$]$_S$
(10) *y-ich*   **lh-ja＝nivacche**   *yi-cunjan*   *ja＝nu'u*
   3-go D_2-F＝woman   3-feed D_2＝dog
   'Se fue la mujer que le dio de comer al perro. / The woman who fed the dog left.'

    [DET$_O$＝*NOUN*   A-V]$_S$ V
(11) **ja＝nu'u**   *ja-van*   ∅-*yacut*
   D_2＝dog   1-see   3-be.black
   'El perro que encontré es negro. / The dog I found is black.'

                [DET$_A$＝*NOUN*   A-V   DP$_o$]$_S$
(12) *ja＝nivacle*   *yi-van*   **lh-ja＝nivacche**   *yi-êlôn*   *ca＝nu'u*
   D_2＝man   3-see D_2.F＝woman   3-kill D_2＝dog
   'El hombre vio a la mujer que mató al perro. / The man saw the woman who killed the dog.'

5.3 STRUCTURE 3: [DET = *n* V (DP)]

- Determiner cliticizes to the morpheme *n* , analyzed as a relativizer by Stell (1989)
- This construction employed as S or O arguments (13), (15) and (14) respectively
- Determiners are co-referential with the argument indexed on the verb

$$[DET_s = n \quad s\text{-}V]_S$$

(13)   ∅ -pitej   **ja-n**   *y-ich*

     3-be.tall   3-**n**   3-go

     'Es alto el que se fue. / He's tall the one that left.'

$$[DET_s = n \quad\quad s\text{-}V]_O$$

(14)   *yi-tjôven-elh*   **pa = n**   ∅ -ônlhapa

     3-compete-PL D_4 = **n**   3-be.not.good

     '...competir con la que no era buena / ...compete with the one that wasn't good'

$$[DET_A = n \quad A\text{-}V \quad DP_O \quad]_S$$

(15)   *y-ich*   **lh-ja = n**   *yi-cun-jan*   *ja = nu'u*

     3-go D_2-F = **n**   3-feed D_2 = dog

     'Se fue la que le dio de comer al perro. / The one (F) who fed the dog left.'

5.4 STRUCTURE 4: [DET$_i$ = NOUN$_i$ DET$_i$ = n_i V   (DP)]

- Determiner on the head noun is followed by an identical determiner cliticized to the *n* morpheme
- Employed as S arguments of intransitive verbs (16-17)

     V   [DET = NOUN$_A$ DET$_i$ = n_i A-V   DP$_O$]$_S$

(16)   *y-ich*   **lh-ja = nivacche**   **lh-ja = n**   *yi-cunjan*   *ja = nu'u*

     3-go D_2-F = woman D_2-F = **n**   3-feed D_2 = dog

     'Se fue la mujer que le dio de comer al perro. / The woman who fed the dog left.'

- The DP$_O$ of the verb *cayijôacji* '(to) sleep' is a STRUCTURE 1 grammatical nominalization

     [DET = NOUN$_i$ DET = n_i A-V   DP$_O$]$_S$

(17)   *ja = jpôyich*   *ja = n*   *ja-yetaj-esh*   *ca = yi-jô-acji*   ∅ -is

     D_2 = casa D_2 = **n**   1-want-INST D_3 = 3-sleep-DIR.IN   3-be beautiful

     'La casa en la que quiero dormir es linda.'

     'The house in which I want to sleep is beautiful.'

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6   Interim Summary

Four types of constructions:

CNX 1: [DET = V   (DP)]

CNX 2: [DET = *NOUN*   V   (DP)]

CNX 3: [DET = *n*   V   (DP)]

CNX 4: [DET = *NOUN*   DET = *n*   V   (DP)]

- In the broader syntax these nominalized structures function as complements of matrix verbs
- The internal structure reveals embedded clauses/ relative clause functions[7]
- Employ the same constructions to fulfill these functions

7   Nominalization: hypothesis

- A Common diachronic pathway for nominalization is through clause integration (Hopper & Traugott 1993)
- Suppression of a co-referential argument in a paratactic structure can give rise to a single clause containing a 'nominalized' subordinate clause as a core argument (Lehman 1988, Matthiessen & Thompson 1988)
- Integration: $S_1 + S_2 \rightarrow S_1[S_2]$ (Heine & Kuteva 2007:224)
- In certain Nivacle syntactic configurations, when the co-referential argument of the matrix verb is *adjacent* to the verb in the nominalized constituent, these four constructions can be employed

AV{O$_i$ A$_i$}VO : Two transitive clauses where O of first clause is co-referential with A of second

	A	V	O$_i$	A$_i$	V	O
	man	**see**	**woman**	**woman**	**kill**	**dog**
(18)	*ja = nivačle*	*yi-van*	*lh-ja = nivacche.*	*lh-ja = nivacche*	*yičlôn*	*ca = nu'u*
	D_2 = man	3-see	D_2.F = woman	D_2.F = woman	3-kill	D_3 = dog

     'The man saw the woman.'   'The woman killed the dog.'

	A	V	O$_i$	A$_i$	V	O
(19)	*ja = nivačle*	*yi-van*	**lh-ja = nivacche$_i$**	**lh-ja = n$_i$**	*yi-člôn*	*ca = nu'u* (Cnx 4)
(20)	*ja = nivačle*	*yi-van*		**lh-ja = n$_i$**	*yi-člôn*	*ca = nu'u* (Cnx 3)

     'El hombre vió a la mujer que mató al perro.'

     'The man saw the woman who killed the dog.'

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[7] Relative clauses without relativizing morphology headed solely by deictic determiners are also described in Chorote (Carol 2011:418).

	A	V	O$_i$	A$_i$	V	O
	man	**see**	**woman**	**woman**	**kill**	**dog**
Stage						
0	*ja＝nivaĉle*	*yi-van*	*lh-ja＝nivacche.*	*lh-ja＝nivacche*	*yiĉlôn*	*ca＝nu'u*
	D$_2$＝man	3-see	D$_2$.F＝woman	D$_2$.F＝woman	3-kill	D$_3$＝dog
	'The man saw the woman.'		'The woman killed the dog.'			

Cnx 1	*ja＝nivaĉle*	*yi-van*	**lh-ja＝nivacche$_i$**		*yi-ĉlôn*	*ca＝nu'u*
Cnx 2	*ja＝nivaĉle*	*yi-van*	**lh-ja＝**		*yi-ĉlôn*	*ca＝nu'u*

'El hombre vió a la mujer que mató al perro.'

'The man saw the woman who killed the dog.'

7.1 Exceptions

- When a co-referential argument between the matrix verb and verb in the nominalized constituent is *non-adjacent,* only constructions with **n** can be employed (Cnxs 3,4)

[A$_i$	V	O]	S$_i$-V
[D-*n*	A-V	DP$_o$]$_S$	V

(21) a. *lha＝n* *yi-van* *ja＝nu'u* *yi-ch'injô*   b. **lha＝yivan* *ja＝nu'u yich'injô*

D$_2$.F＝***n*** 3-see D$_2$＝dog 1POSS-sister

'La que vió al perro es mi hermana. The one (F) that saw the dog is my sister.'

A$_i$-V	[A$_i$		O]
	[D-*NOUN*	D-*n*	s-V]$_O$

(22) *ja-van* *ja＝∅-pitej* *ja-n* *y-ich*   b. **javan japitej ja＝yich*

1SG-see D$_2$＝3-be.tall D$_2$-***n*** 3-go

'Vi al alto que se fue / I saw the tall (one) leave.'

8 Conclusion

- Grammatical nominalization is a pervasive strategy in Nivacle
- Typologically, these constructions only display one of the common properties found in grammatical nominalization: the presence of determiners
- Possibly origins in historical clause integration→ nominalized constituents
- Determiners syncronically functioning as 'nominalizers'
- Ongoing research into these structures in texts

Abbreviations

1	first person	LOC	locative suffix
3	third person	M	masculine
CIS	cislocative	NONHUM	non-human
D	determiner	O	object
F	feminine	PL	plural
HUM	human	POSS	possessive person prefix
INS	instrumental		

Nivacle orthography corresponds to the IPA with these exceptions: <j> = /x/, <y> = /j/, <c> = /k/, <'> = the glottal stop /ʔ/ or glottalization on a consonant or vowel, <ĉl> =/kl/, <lh> = /ɬ/, <ch> = /tʃ/, and <ô> = /ə/ or /ɒ/.

References

Carol, Javier. 2011. Determinantes demonstratives en chorote (mataguayo). Interrelación con la modalidad, la temporalidad y la evidencialidad. *Indiana* 28. 227-254.

Carol, Javier Jerónimo. 2015. TAM marking on nominals in Chorote (Mataguayo, Argentine, and Paraguayan Chaco). *Linguistics* 53(4). 877-930.

Comrie, Bernard, & Sandra A Thompson. 2007. Lexical nominalization. In Timothy Shopen (ed.), *Language Typology and Syntactic Description, Volume 3: Grammatical Categories and the Lexicon*, 349-398. Cambridge: Cambridge University Press.

Delancey, Scott. 2002. Relativization and nominalization in Bodic. *Annual Meeting of the Berkeley Linguistics Society: Special Session on Tibeto-Burman and Southeast Asian Linguistics* 28. 55-72.

DGEEC. 2012. III Censo Nacional Indígena de Población y Viviendas 2012: Pueblos indígenas del Paraguay [Paraguay Census]. Asunción: Dirección General de Estadística Encuestas y Censos.

Encuesta Complementaria de Pueblos Indigenas [ECPI Complimentary Survey of Indigenous Peoples]. 2004. Argentina: Instituto de Estadìsticas y Censos, Ministerio de Interior.

Fabre, Alain. 2015a. *Estudio gramatical de la lengua Nivacle.* MS.

Fabre, Alain. 2015b. Predicative possession in Nivacle. *LIAMES* 15(2). 17-41.

Genetti, Carol et al. 2008. Syntactic aspects of nominalization in five Tibeto-Burman languages of the Himalayan area. *Linguistics of the Tibeto-Burman area* 31(2). 97-143.

Heine, Bernd, & Tania Kuteva. 2007. *The genesis of grammar: A reconstruction.* Oxford: Oxford University Press.

Klein, Harriet Manelis, & Louisa R Stark. 1977. Indian Languages of the Paraguayan Chaco. *Anthropological Linguistics*. 378-401.

Lehmann, Christian. 1988. Towards a typology of clause linkage. In John Haiman, & Sandra A. Thompson (eds.), *Clause combining in grammar and discourse*, 181-225. Amsterdam: John Benjamins.

Matthiessen, Christian, & Thompson, Sandra A. 1988. The structure of discourse and 'subordination'. In John Haiman, & Sandra A Thompson (eds.), *Clause combining in grammar and discourse*, 275-329. Amsterdam: John Benjamins.

Messino, Cristina, Javier Carol, & Harriet Manelis Klein. 2012. Los determinantes demostrativos en las lenguas guaycurúes y mataguayas (Región del Gran Chaco). Memorias del V Congreso de Idiomas Indígenas de Latinoaméria.

Shibatani, Masayoshi. 2009. Elements of complex structures, where recursion isn't. The case of relativization. In Talmy Givón, & Masayoshi Shibatani (eds.), *Syntactic complexity: Diachrony, acquisition, neuro-cognition, evolution*, 163-198. Amsterdam: John Benjamins.

Stell, Nelida Noemi. 1989. *Gramatica descriptiva de la lengua Niwakle (Chulupi)*. Buenos Aires: Universidad de Buenos Aires dissertation.

van Gijn, Rik. 2014. Subordination in native South-American languages. In Loretta O'Connor, & Pieter Muyusken (eds.), *The Native Languages of South America Origins, Development, Typology*, Cambridge University Press.