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: functions as an argument/ verbal complement, no lexical status
     - In the broader syntax, grammatical nominalizations function as referring expressions
       and behave like nouns (NPs) (Shibatani 2007, Genetti et al. 2008)
     - 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)

<table>
<thead>
<tr>
<th>Nivacle deictic determiners*</th>
<th>Seen</th>
<th>Never seen</th>
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<tbody>
<tr>
<td>SG</td>
<td>Masc</td>
<td>D</td>
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<tr>
<td></td>
<td>Fem</td>
<td>la</td>
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<td>PL</td>
<td>+ Hum</td>
<td>na-pi</td>
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<td></td>
<td>- Hum</td>
<td>la-va</td>
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*adapted from Fabre (2015:62)

- Determiners have a high functional load: evidential notions / nominal tense*
- 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 = nivacle "pitej
   D3 = man 3.CL, be.tall
   'El hombre alto / The tall man’ (The man is not seen at the time of utterance)

2 Data are presented in Nivacle orthography: see page 8 of this handout
3 See Carol (2011) and Mesatino et al. (2012) for determiners in other Mataguayan languages.
4 See Carol (2015) for an in-depth treatment of 'nominal' TAM marking in Chorote (Mataguayan)
5 Fabre (2015a.64-67) cites certain marginal exceptions: Noun-incorporation (rare), relator nouns (must follow verbs marked with LOC/APPL morpheme), vocative constructions, citation forms.

1 SSILA 2016, Washington D.C.
2 SSILA 2016, Washington D.C.
3 Language and Background
- Nivacle [niβa/le] (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 arrêño ‘Upriver’ and abaseño ‘Downriver’ varieties of the larger ribèreño ‘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 dieitic determiners

4 Nivacle Determiners4
The Mataguayan languages display cognate sets of ‘deictic’ determiner proclitics (Table 1),5
- Nivacle determiners are firmly based on visual interpretation of the referent: four dimensions
  i. D1 = seen at the time of utterance
  ii. D2 = seen prior and not present at time of utterance (still in existence)
  iii. D3 = 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. D4 = never seen
- The ‘unmarked’ and simplest forms of the determiners are masculine singular

1 Our thanks to the many Nivacle speakers who patiently provided data for this paper. This research has been partially supported by NSF grant 1263817, CONICET (Argentina), and the University of Oregon.
2 The terms Matacoan or Mataco-Mataguayan for this family are also found in the literature.
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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: \([\text{DET} = \text{V} \quad (\text{DP})]\)

- Determiner is directly cliticized to the verb (transitive or intransitive)*

\[\text{V} \quad [\text{DET} = \text{A} = \text{V}] \quad \text{DP}_a\]

(3) \( ja-n-fac-ch'e \quad ca = va = ja-van \)

1-CISL-say-LOC  \( D_2 = \text{PL.NONHUM} = 1\)-see

'El hablo de los que vi. / I talk about, those that I saw.'

(4) \( ja = ja-van \quad \ominus \quad \text{yacut} \)

\( D_2 = 1\)-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)

\[\text{V} \quad [\text{DET} = \text{A} = \text{V}] \quad \text{DP}_a\]

(5) \( \text{y-ich} \quad lb-ja = yi-cunjan \quad ja = nu'u \)

3-go  \( D_2,F = 3\)-feed  \( D_2 = \text{dog} \)

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

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6.1 pipej  \( ja = y-ich \)

\( 3\)-be.tall  \( D_2 = 3\)-go

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

\[\text{DET}_2 = \text{V} \quad S\]

(7) \( ja = \text{nivalle} \quad yi-jut-\text{e} \quad ja = \text{va} = \ominus'\text{e} \text{i-ci-vat-sham-in} \)

\( D_1 = \text{man} \quad 3\)-give-LOC  \( D_2 = \text{candy} \quad D_2 = \text{PL.HUM} = 3\)-CISL-dance-REFL-DIR-PLU

'El hombre le dio caramelos a los que jugaban. / The man gave candy to those that were playing'

\[\text{DET}_2 = \text{A-V} \quad \text{DP}_a\]

(8) \( ja = va = yi-jut-\text{e} \quad ja = pi = ta\text{ñ} = \ominus \quad \text{va} = \text{fist} \)

\( D_2 = \text{PL.NONHUM} = 3\)-give-LOC  \( D_2 = \text{PL.HUM} = \text{child-PL} \quad 3\)-candy

'Lo que le dio a los niños son caramelos. What he gave the kids is candy.'

\[\text{DET}_2 = \text{A-V} \quad \text{DP}_a\]

(9) \( ca=ji \quad ja-pi = y-an-shicham-c'\text{yaa} \)

\( \text{COP} \quad D_2 = \text{PL.HUM} = 3\)-put-DIR-DOWN-VEN

'Hubo los que los ponían abajo. / There were those that put (them) down.'

5.2 Structure 2: \([\text{DET} = \text{NOUN} \quad \text{V} \quad (\text{DP})]\)

- 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)

\[\text{V} \quad [\text{DET} = \text{NOUN} \quad \text{A-V}] \quad \text{DP}_a\]

(10) \( y\text{-ich} \quad lb-ja = ni\text{cach} \quad yi-cunjan \quad ja = nu'u \)

3-go  \( D_2,F = \text{woman} \quad 3\)-feed  \( D_2 = \text{dog} \)

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

\[\text{DET}_2 = \text{NOUN} \quad \text{A-V-V} \quad \text{DP}_a\]

(11) \( ja = nu'u \quad ja-van \quad \ominus \quad \text{yacut} \)

\( D_2 = \text{dog} \quad 1\)-see  \( 3\)-be.black

'El perro que encontré es negro. / The dog I found is black.'

\[\text{DET}_2 = \text{NOUN} \quad \text{A-V-V} \quad \text{DP}_a\]

(12) \( ja = \text{nivalle} \quad yi-van \quad lb-ja = ni\text{cach} \quad yi-\text{chon} \quad ca = nu'u \)

\( D_1 = \text{man} \quad 3\)-see  \( D_2,F = \text{woman} \quad 3\)-kill  \( D_2 = \text{dog} \)

'El hombre viejo la mujer que mató al perro. / The man saw the woman that killed the dog.'

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* 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.
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

\[ [\text{DET} = n \ V] \]

(13) \( \odot \text{pítayich} \ ja = n \ y'ich \)
3-be.tall 3-n 3-go

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

\[ [\text{DET} = n \ s-V] \]

(14) \( \text{yitjóven-ch} \ pa = n \ \odot \text{-dálhapa} \)
3-compete.PL D₂ = n 3-be.not.good

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

\[ [\text{DET} = n \ A \ V] \]

(15) \( y'ich \ \text{lh-ja} = n \ \text{yi-cun-jan} \ ja = n'u' \)
3-go D₂,F = n 3-feed D₁ = dog

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

5.4 **Structure 4:** [DET, = n \ A \ NOUN, \ DET, = n₁ \ 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)

\[ [\text{DET} = n \ \text{NOUN}, \ \text{DET} = n₁ \ A \ \text{V}] \]

(16) \( y'ich \ \text{lh-ja} = \text{nivacche} \ \text{lh-ja} = n \ \text{yi-cun-jan} \ ja = n'u' \)
3-go D₂,F = woman D₂,F = n 3-feed D₁ = dog

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

- The DP, of the verb cañjičajjí ‘(to) sleep’ is a structure 1 grammatical nominalization

\[ [\text{DET} = \text{NOUN}, \ \text{DET} = n₁ \ A \ \text{V}] \]

(17) \( \text{ja} = \text{jó} \text{dýich} \ ja = n \ \text{ja-yetapi-es} \ ca = \text{yji-jó-sajj} \ \odot \text{-is} \)
D₂ = casa D₂ = n 1-want-INST D₁ = 3-be beautiful

'La casa en la que quiero dormir es linda.'
'The house in which I want to sleep is beautiful.'

6 **Interim Summary**

Four types of constructions:

Cnx 1: \[ [\text{DET} = V] \]

Cnx 2: \[ [\text{DET} = \text{NOUN} \ V] \]

Cnx 3: \[ [\text{DET} = n \ V] \]

Cnx 4: \[ [\text{DET} = \text{NOUN} \ \text{DET} = n \ V] \]

- In the broader syntax these nominalized structures function as complements of matrix verbs
- The internal structure reveals embedded clauses/relative clause functions³
- 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: \( \text{S₁} + \text{S₁} \rightarrow \text{S₁}[\text{S₁}] \) (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

\[ [\text{A(O, A)} \text{V}O] \] Two transitive clauses where O of first clause is co-referential with A of second

\[ \begin{array}{ccccccc}
\text{A} & \text{V} & \text{O₁} & \text{A₁} & \text{V} & \text{O} \\
\text{man} & \text{see} & \text{woman} & \text{woman} & \text{kill} & \text{dog} \\
\text{ja} & \text{niwacche} & \text{yi-san} & \text{lh-ja} & \text{nivacche} & \text{yi-chón} & \text{ca} = n'u' \\
\text{D₁} & \text{3-see} & \text{D₂,F} & \text{woman} & \text{D₂,F} & \text{woman} & \text{D₁} & \text{dog} \\
\text{The man saw the woman.} & \text{‘The woman killed the dog.’} \\
\end{array} \]

\[ \begin{array}{ccccccc}
\text{ja} & \text{niwacche} & \text{yi-san} & \text{lh-ja} & \text{nivacche} & \text{yi-chón} & \text{ca} = n'u' \\
\text{D₁} & \text{3-see} & \text{D₂,F} & \text{woman} & \text{D₂,F} & \text{woman} & \text{D₁} & \text{dog} \\
\text{The man saw the woman.} & \text{‘The woman killed the dog.’} \\
\end{array} \]

³ Relative clauses without relativizing morphology headed solely by deictic determiners are also described in Chorote (Carol 2011:418).
7.1 Exceptions

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

\[
\begin{array}{cc}
\{A_i, V, O\} & S/V \\
\{D-n, A-V, DP, \} & V \\
\end{array}
\]

(21) a. \(lha = n\) \(ji-van\) \(ja = nu\) \(yi-ch'\ln\)b. \(‘lha = yivan\) \(ja = nu\) \(yi-ch'\ln\)

\(DP = n\) \(3=\)see \(DP = dog\) 1POS-sister

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

\[
\begin{array}{cc}
\{A_i, V, O\} & S/V \\
\{D-n, A-V, \} & S-V \\
\end{array}
\]

(22) \(ja-van\) \(ja = c-\)pitej \(ja = n\) \(y=ich\) b. \(‘jian yapitej\) \(ja = yich\)

\(V = 3=\)be.tall \(DP = n\) 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 synchronically functioning as ‘nominalizers’
- Ongoing research into these structures in texts

References


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


