How to distinguish between nouns and classifiers in Binominal Naming Constructions? Answers from two Amazonian languages

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When N meets N – 13th September 2017 – SLE50 – Zürich
Introduction - Research question

- Two unrelated languages of Western Amazonia:
  - Harakmbut (isolate, Peru) ▲
  - Mojeño Trinitario (Arawak, Bolivia), ▲
Introduction - Research question

- Steve Pepper’s list of 100 complex concepts: Mojeño Trinitario

- simple 23%
- N-N compound 12%
- borrowing 12%
- N with classifier 21%
- other derivation 10%
- other devices 32%
- sample size 52 items for 45 entries
Introduction - Research question

- Classifiers in Western Amazonian languages as derivational devices on nouns (Aikhenvald 2000; Seifart & Payne 2007)
- Classifiers commonly assumed to originate in nouns (Mithun 1986; Aikhenvald 2000)
- Analytical problem: among Binominal Naming Constructions, how to distinguish between the derivational use of classifiers on nouns (1) and noun-noun compounds (2)?

Harakmbut
(1) N-CLF derived nouns
   a) siro-\textit{pi} \quad metal-CLF:stick \quad ‘knife’ (cf. Hart 1963: 1)
   b) siro-\textit{pu‘} \quad metal-CLF:cylindrical;hollow \quad ‘metal tube’ (cf. Hart 1963: 1)

(2) N-N compounds
   a) ndumba-k\textit{uwa} \quad forest-dog \quad ‘bush dog’ (Helberg 1984: 252; Tripp 1995: 194)
   b) äwït-k\textit{u} \quad giant.otter-head \quad ‘giant otter’s head’ (Hart 1963: 3)
Introduction - Research question

• "One problem hinges on **how we distinguish bound roots from derivational affixes.**" (Lieber and Stekauer 2009)

• To distinguish compounding from derivation: investigation within and beyond Binominal Naming Constructions… because Mojeño and Harakmbut show classifiers in other morphosyntactic contexts

• Larger research question: **How to distinguish classifiers from bound nouns?**
  ○ "Bound nominal roots including classifiers form a continuum from rather lexical to more grammatical elements" (Admiraal and Danielsen 2009: 81)
  ○ "There are often some nouns that seem to lie on the threshold between classifiers and specific nouns" (Dixon 1986:106)
N-N compounds vs. N-CLF derived nouns
N-N compounds: N2 is usually a bound noun

<table>
<thead>
<tr>
<th>Independent nouns</th>
<th>Bound nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>may occur as nominal heads without morphology</td>
<td>never occur as nominal heads without morphology</td>
</tr>
<tr>
<td><strong>MT</strong></td>
<td><strong>MT</strong></td>
</tr>
<tr>
<td>wiye</td>
<td>n-juma</td>
</tr>
<tr>
<td>ox</td>
<td>1SG-sickness</td>
</tr>
<tr>
<td>‘ox’</td>
<td>‘my sickness’</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td><strong>H</strong></td>
</tr>
<tr>
<td>pagn</td>
<td>ndo’-edn</td>
</tr>
<tr>
<td>father</td>
<td>1SG-GEN</td>
</tr>
<tr>
<td>‘father’</td>
<td>‘father’</td>
</tr>
</tbody>
</table>

rarely found as N2 in N-N compounds, and rarely incorporated within a verb | often found as N2 in N-N compounds, and incorporated within a verb |
N-N compounds

Most common: endocentric compounds:

- N2 is a bound noun, the formal and semantic head of the compound
- N1 is semantically subordinate (Scalise & Bisetto 2009)

**MT**

(1) su kasiki-yeno ART.F cacique-wife
    ‘a cacique’s wife’

**H**

(3) kaimäri-mbogn zungaro-lip
    ‘lip of a zungaro fish’

But also exocentric compounds:

(2) kwoyosumu kwoyu-sumu horse-snout
    'mountable ox' (Sp. buey caballo)

(3) can also be used as an exocentric compound, to refer to a person whose lips resemble those of a zungaro fish
N-CLF derived nouns

- In both MT and H, most CLF have broader semantics than Ns (except repeaters).
- Lieber and Stekauer 2009: “roots in some sense have more semantic substance than affixes.”

<table>
<thead>
<tr>
<th>CLF</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT -pi ‘CLF.rope’</td>
<td>giore ‘snake’</td>
</tr>
<tr>
<td>MT -pewo’u ‘CLF.hand’</td>
<td>-wupe ‘hand’</td>
</tr>
<tr>
<td>Harakmbut -pu’ ‘CLF:cylindrical;hollow’</td>
<td>-pu’ ‘bamboo’</td>
</tr>
<tr>
<td>Harakmbut -pi ‘CLF:stick’</td>
<td>-pi ‘stick’</td>
</tr>
</tbody>
</table>
N-CLF derived nouns

Meaning built upon semantic properties of both N and CLF

MT to yuk-pi ART.NH fire-CLF:rope 'a candle'

H pera’-po rubber-CLF:round ‘plastic ball’ (Hart 1963: 5)

MT to sawari-omo ART.NH tobacco-CLF:liquid 'tobacco juice'

H siro-po metal-CLF:round ‘tin can’ (Hart 1963: 1)

CLF cannot be considered a formal head.
Classifiers vs. bound nouns
Classifiers vs. bound nouns: roadmap

Comparison of bound nouns and CLF:

1) form & meaning
2) phonological integration
3) syntactic distribution
4) function on N and in V
1. Classifiers vs. bound nouns: form & meaning

Mojeño Trinitario

- 28 classifier suffixes
- most are CV, without an obvious relationship to a N (Ns are at least bisyllabic)
  - *pi* CLF.rope ≠ *giore* ‘snake’
- others show a formal and semantic relationship to a N (CLF meaning is more general, often about shape)
  - same form, related meaning
    - *pu’i* CLF.round&smooth // *pu’i* ‘island’
  - related form, related meaning
    - *ju’e* ~ *je* CLF.interior // *ju’e* ‘stomach’
1. Classifiers vs. bound nouns: form & meaning

If suspect element shows either formal and/or semantic distinction between its function in word formation and as an NP head, it is considered a CLF.

<table>
<thead>
<tr>
<th>ART.NH</th>
<th>1SG-name-CLF:environment</th>
<th>'my birthday'</th>
</tr>
</thead>
<tbody>
<tr>
<td>to n-ijare-m’i (&lt; mu’i)</td>
<td>to ta-em’i ma ‘chane &lt; im’i (a+i = ae)</td>
<td></td>
</tr>
<tr>
<td>ART.NH</td>
<td>3NH-phys_prop</td>
<td>ART.M person</td>
</tr>
<tr>
<td>'the shape of a man'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If suspect element shows neither formal nor semantic distinction between its function in word formation and as an NP head, it is considered a N.

<table>
<thead>
<tr>
<th>ART.NH</th>
<th>mango-trunk</th>
<th>'the mango tree trunk'</th>
</tr>
</thead>
<tbody>
<tr>
<td>to manka-chpu</td>
<td>to ta-chupu (to) manka</td>
<td></td>
</tr>
<tr>
<td>ART.NH</td>
<td>3NH-trunk (ART.NH) mango</td>
<td>'the trunk of a mango tree'</td>
</tr>
</tbody>
</table>
1. Classifiers vs. bound nouns: form & meaning

Harakmbut

- about 7 CLF suffixes; CV (some independent nouns are also monosyllabic, e.g. kā ‘type of pineapple’)
- all show a relationship to a bound N:
  (a) same form, related meaning (shape; quality):
    - mba’ CLF:2-dimensional -mba’ ‘hand’ bodypart
    - pe CLF:disk -pe ‘jaw, chin, cheek’ bodypart
    - pa CLF:rod -pa ‘penis’ bodypart
    - pu’ CLF:cylindrical;hollow -pu’ ‘bamboo’ plant
    - nda CLF:fruit -nda ‘fruit’ plant part
  (b) same form, bound noun just denotes the shape of CLF:
    - pi CLF:stick -pi ‘stick’
    - po CLF:round -po ‘something round’
2. Classifiers vs. bound nouns: phonological integration

Mojeño Trinitario

CLF and N in compounds behave identically as part of the word for stress placement, phonotactics and rhythmic syncope (Rose 2017).

V-CLF
	nsiopueko (< n-siopo)

nu-siopo-e-ko
1SG-enter-CLF:water-ACT
'I enter water'

N-N

wakaechkopa (< waka)
waka ichko-pa
cow excrement-CLF
'cow dung'
2. Classifiers vs. bound nouns: phonological integration

Harakmbut

CLF and N in compounds behave identically as part of the word for stress placement

\[
\begin{align*}
\text{N} & \quad \text{N} \\
siro & \quad \text{tare} \\
\text{‘metal’} & \quad \text{‘manioc’} \\
\text{N-CLF} & \quad \text{N-N} \\
siro-pi & \quad \text{tare-mba’} \\
\text{metal-CLF:stick} & \quad \text{manioc-hand;leaf} \\
\text{‘knife’ (cf. Hart 1963: 1)} & \quad \text{‘manioc leaf’}
\end{align*}
\]
### 3. Classifiers vs. bound nouns: syntactic distribution

<table>
<thead>
<tr>
<th></th>
<th>Harakmbut</th>
<th>Mojeño Trinitario</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bound N</td>
<td>CLF</td>
</tr>
<tr>
<td>as NP head</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>on numerals</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>on adjectives</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>on nouns</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>in verbs</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**MT:** multiple classifier system (Aikhenvald 2000)
3. Classifiers vs. bound nouns: syntactic distribution

**MT:** **CLF** and **bound N** show shared distribution

**NUM-CLF**
- no api-na-no 'chañ(e)-ono
- ART.PL two-CLF:h.pl person-PL
  'two persons'

**ADJ-CLF**
- to chope-gie wkugi
- ART.NH big-CLF:cyl tree
  'the big trunk'

**V-CLF**
- n-semo-pi-ko
- 1SG-be_angry-CLF:rope-ACT
  'I am angry at words'

**NUM-N**
- api-pgienu (<pgienu)
- two-neck
  'two necks'

**ADJ-N**
- ema chope-tupara'o.
- 3M big-charge
  'the biggest responsability'

**V-N**
- tvio'iriko
- ti-ve-o'i-ri-ko
- 3-take_out-fruit-PLURACT-ACT
  'he collects fruits'
3. Classifiers vs. bound nouns: syntactic distribution

Harakmbut

- **Numerals** are free morphemes; never take CLF
- yet **bound N** may form one prosodic word with NUM (b), unlike free N

[I have two hands’ (a)]

1SG.IND-SOC-be-1.IND

[ih-tô-ë-ÿ]

‘I have two hands’

mbotta’ wa-mba’

two NPF-hand

1SG.IND-SOC-be-1.IND

[ih-tô-ë-ÿ]

‘I have two dogs’

mbotta’ kuwa

two dog

1SG.IND-SOC-be-1.IND

[kuwa: free noun]

- **Adjectives** never take CLF

[ih-tô-ë-ÿ]

‘I have big feet’

1SG.IND-SOC-be-1.IND

wa-’i

NPF-foot

mboro’-nda

big-NDA
3. Classifiers vs. bound nouns: syntactic distribution

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<tbody>
<tr>
<td></td>
<td>bound N</td>
<td>CLF</td>
</tr>
<tr>
<td>as NP head</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>on numerals</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>on adjectives</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>on nouns</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>in verbs</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

- In both H and MT, head of NP is a context restricted to N
- In H: N and CLF share 2 environments, 2 other restricted to N
- In MT: N and CLF share the same distribution, except for head of NP
4. Classifiers vs. bound nouns: functions on N

- But same distribution does not mean same function, e.g. on N:

<table>
<thead>
<tr>
<th>Types of noun incorporation</th>
<th>Harakmbut</th>
<th>Mojeño Trinitario</th>
</tr>
</thead>
<tbody>
<tr>
<td>word formation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>categorization</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

- **MT**: multifunctional classifier (Krasnoukhova 2012): same set used for categorization, derivation and some agreement:

  - CLF on N with derivational function:
    - to **yuk(u)-pi**
    - ART.NH fire-CLF:rope
    - ‘a candle’

  - CLF on N with categorizing function:
    - to **aramre-pi**
    - ART.NH barbed_wire-CLF:rope
    - 'barbed wire'
### 4. Classifiers vs. bound nouns: functions in V

<table>
<thead>
<tr>
<th>Types of noun incorporation (Mithun 1984)</th>
<th>Harakmbut</th>
<th></th>
<th>Mojeño Trinitario</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bound N</td>
<td>CLF</td>
<td>bound N</td>
<td>CLF</td>
</tr>
<tr>
<td>Type I: lexical compounding</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Type II: manipulation of case</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Type III: backgrounding in discourse</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Type IV: classifying with ‘coreferential’ NP</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
</tr>
</tbody>
</table>
4. Classifiers vs. bound nouns: functions in V

**Mojeño Trinitario**

**V-N**

**Type I:** lexical compounding

- t-**vi-o'i-ri-ko**
- 3-take_out-fruit-PLURACT-ACT
  'The man collects fruits.'

**Type II:** manipulation of case

- n-eja-**j**-ko
- 1SG-sit-CLF:shapeless-ACT ART.NH mud
  'I am (heap-)sitting in the mud.'

**Type III:** backgrounding in discourse

- p-eja-**pue**-gi-a
- 2SG-sit-CLF:ground-ACT-IRR
  'Please sit down (on the floor).'

**Type IV:** classifying with 'coreferential' NP

- t-eja-**me-re-ko**
- 3-sit-CLF:fabric-PLURACT-ACT PREP DEM
  'The man is (fabric-)sitting on a mat.'

---

**V-CLF**

**Type II:** manipulation of case

- n-eja-**j**-ko
- 1SG-sit-CLF:shapeless-ACT ART.NH mud
  'I am (heap-)sitting in the mud.'

**Type III:** backgrounding in discourse

- p-eja-**pue**-gi-a
- 2SG-sit-CLF:ground-ACT-IRR
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- t-eja-**me-re-ko**
- 3-sit-CLF:fabric-PLURACT-ACT PREP DEM
  'The man is (fabric-)sitting on a mat.'
4. Classifiers vs. bound nouns: functions in V

Harakmbut

N-V

Type I: lexical compounding

ndo'-edn wa-nda-po ö-mê’-a’
1SG-GEN NPF-CLF:fruit-CLF:round 3SG.IND-liver-say
‘My belly is making noise.’ (lit. ‘liver-says’)

Type II: manipulation of case

mbé-ku ti-kot-uy-ne apoare’-a ta’mba-ya
3SG>1/2SG-head-UP-fall-DIST.PST-IND papaya-NOM swidden-LOC
‘A papaya fell on my head in the swidden long ago.’
4. Classifiers vs. bound nouns: functions in V

Harakmbut

CLF-V

Type III: backgroundering in discourse
pera o-n-ka änï, o-mbewik-po eskalera-te, änï
pear(Sp) 3SG.IND-SPAT-do FILLER 3SG.IND-go.up-DEP ladder(Sp)-LOC FILLER
‘He is picking pears, eh, going up on a ladder, eh’
o-ma-nda-e-a, o-ma-nda-e-a änï, kanasta-yo,
3SG.IND-VPL-CLF:fruit-get-TRVR 3SG.IND-VPL-CLF:fruit-get-TRVR FILLER basket(Sp)-LOC
‘He is taking/collecting them (the fruits), eh, in a basket.’

Type IV: classifying with ‘coreferential’ NP
men kōsō ya-po'-sak-on?
which pot 3SG.DUB-CLF:round-break-PFV.PAT
‘Which pot is breaking?’
Conclusion
Conclusion - The issue

Two very similar binominal naming constructions in 2 Western Amazonian languages: N-N & N-CLF derived noun

- Raises the issue of synchronic distinction b/w Ns and CLFs
- Various answers to this tricky descriptive task
  - Gill 1957 on MT: some bound nouns are used as classifiers
  - Admiraal and Danielsen 2014 on Baure (Arawak): CLF are a type of nominal roots
  - This talk
    - offers some criteria to distinguish CLF from N
    - suggests that their similarities point to the grammaticalization route from bound nouns to classifiers
Conclusion - Some answers

Criteria to distinguish CLF from N are to be looked for beyond complex nouns:

<table>
<thead>
<tr>
<th></th>
<th>Harakmbut</th>
<th>Mojeño Trinitario</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLF formally or semantically distinct from Ns</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>CLF have a categorizing function on N</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>CLF cannot function as NP head</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CLF have a categorizing function when incorporated in verbs</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Conclusion - Back to the origin

- Similarity in use of bound N and CLF points to a series of source constructions for the development of classifiers through grammaticalization (more grammatical function, abstraction and extension of meaning, phonetic erosion)

- Fabb (1998:68): "diachronic loss of transparency (both formal and interpretive) can be seen in the process whereby a part of a compound becomes an affix"

- The grammaticalization of CLF did not involve the shift from an independent item to a bound one, but occurred only after the element became bound to the root through compounding (with loss of referentiality and case role) (cf. Mithun 1997 on lexical affixes)
References

Extras N-N compounds

N-N compounds differ from:

- nouns modified by another noun (two words, N2 specifies N1, both can be independent Ns), only in MT

  ŋi 'chane 'jiro
  art.m person man
  ‘the man’

- genitive constructions

MT (two NPs, N1 is a bound noun, N2 is POSS)  H (two NPs: N1 POSS_er, N2 POSS_ed)
t(a)-og’e to kwoyu apetpet-en hak
tart.nh 3nh-body art.nh horse jaguar-GEN house
‘the body of the horse’ ‘the jaguar’s den’
N-CLF derived nouns

CLF are not referential, their general function is modifying. Cf. Mithun 1986

→ CLF cannot be considered a semantic head.

CLF are not formal heads either.

in MT, CLF are not specialized with a particular gender
to wayo-si
art.nh deer_fly-clf:round
the deer fly

su ty-jop-si
art.f 2-be_white-CLF:round
the white-haired woman
Syncope in MT

N-CLF
ptiku
peti-ku
house.UNPOSĐ-CLF:hollow
'room'

N-N
kchiipeno
kchiru-peno
hormiga-house.POSS
'hormiguero'
Classifiers vs. bound nouns: syntactic distribution

In both MT and H, head of NP is a context restricted to N.

Cf. Lieber and Stekauer 2009 “bound roots can be distinguished from affixes only by virtue of also occurring as free forms”

MT

<table>
<thead>
<tr>
<th></th>
<th>to</th>
<th>ta-pi</th>
<th>to yuku</th>
</tr>
</thead>
<tbody>
<tr>
<td>art.nh</td>
<td>yuk-pi</td>
<td>3nh-CLF:rope</td>
<td>art.nh</td>
</tr>
<tr>
<td>'fire'</td>
<td></td>
<td>'a candle'</td>
<td></td>
</tr>
<tr>
<td>su</td>
<td>kasikiyeno</td>
<td></td>
<td>ni</td>
</tr>
<tr>
<td>su</td>
<td>kasiki-yeno</td>
<td></td>
<td></td>
</tr>
<tr>
<td>art.f</td>
<td>cacique-wife</td>
<td></td>
<td>kasiki</td>
</tr>
<tr>
<td>'a cacique's wife' {elicited}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>su</td>
<td>ni-yeno</td>
<td></td>
<td></td>
</tr>
<tr>
<td>su</td>
<td>3M-wife</td>
<td>art.m</td>
<td>cacique</td>
</tr>
<tr>
<td>art.f</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'the wife of the cacique' {elicited}</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>