

Growing verbal and nominal plural marking: The case of South American languages

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1. Introduction



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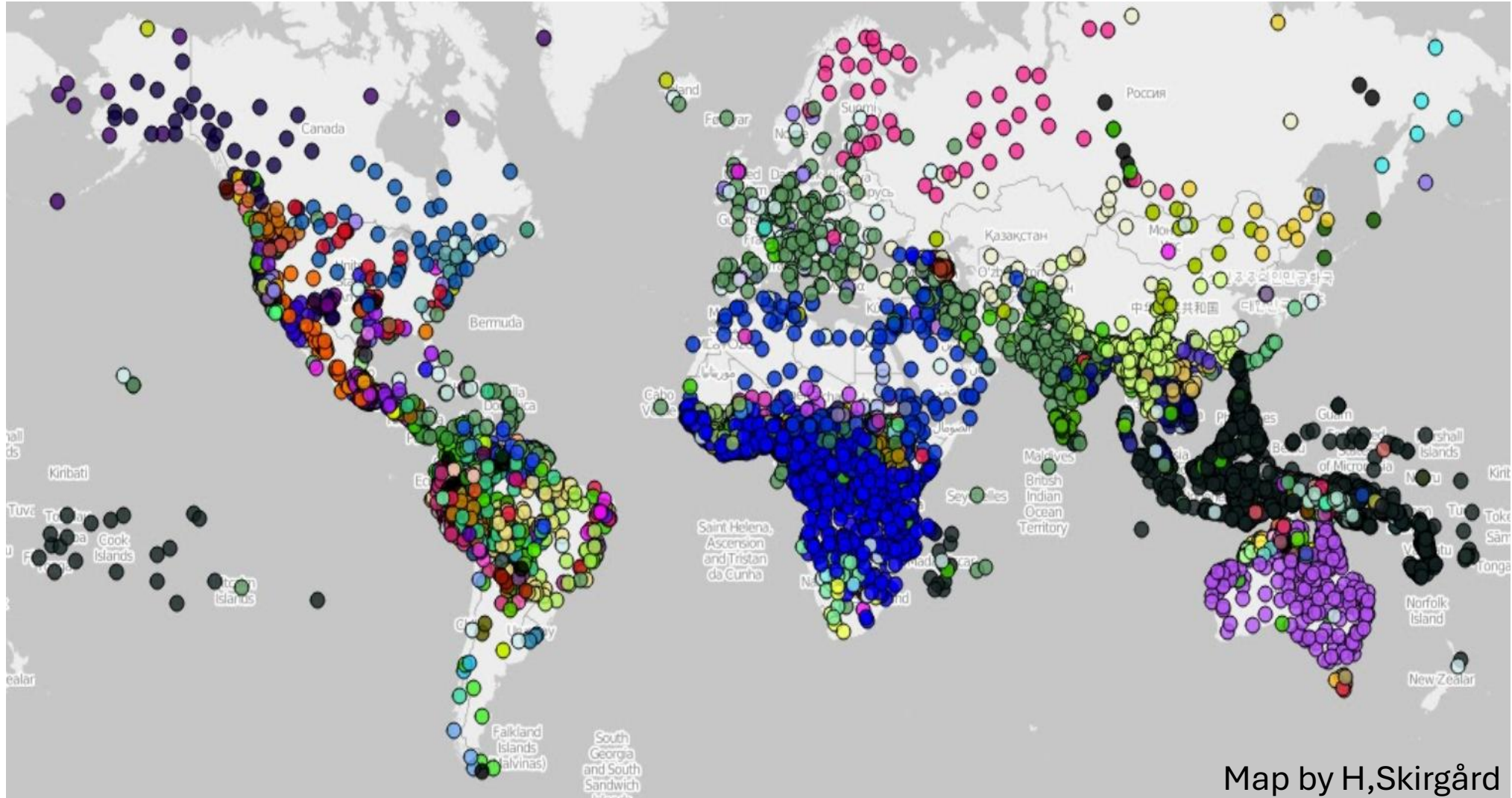
- Focus:

Sources and diachronic connection between nominal and verbal number, in South American (SA) indigenous languages

Why South American languages?



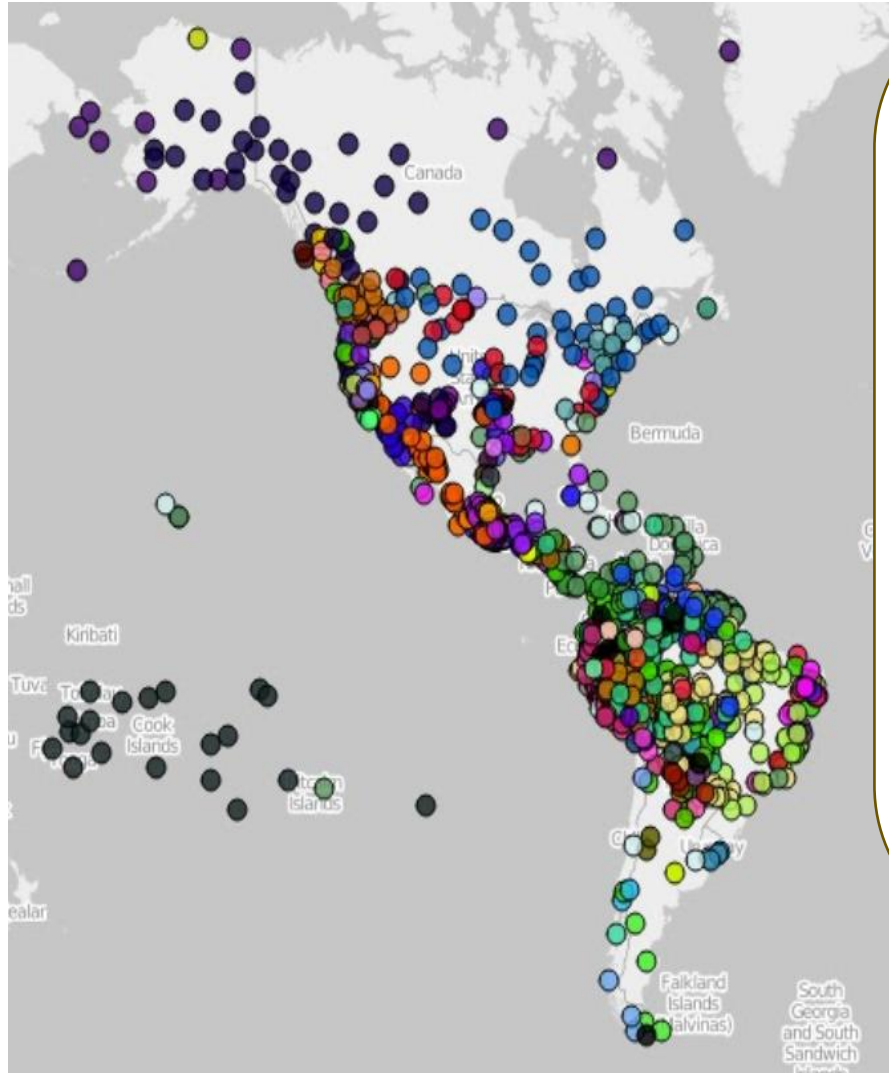
1. Introduction



Different color = different family. (NB except for black)



1. Introduction



Why South America interesting?

Compare:

- **420 families** in the world, out of which **1/4 in South America**
- **153 isolates** in the world, out of which **1/3 in South America**

Extreme genealogical diversity ...

... and extreme typological diversity

Map by H, Skirgård

Different color = different family. (NB except for black)



1. Introduction

- Terminology:
 - ‘**Nominal number**’: marking on nouns that encode plurality (non-singularity) of the referent of the noun,
e.g. white clouds, clever boys
- ‘**Verbal number**’: **marking on the verb** that encodes **plurality** of **a participant**.
 - **Marking on the verb**: morphological (bound) markers and free markers syntactically associated with the verb
 - **Plurality**: our focus is on markers that encode only plurality (as the main function), so we exclude person+number markers.
 - **Participant**: **S** (the only argument of an intransitive verb), **A** (the most Agent-like argument of a transitive verb) and/or **O** (the most Patient-like argument of a transitive verb).



1. Introduction

(1) Harakmbut (isolate; adapted from Van linden (2023: 467, 470))

(a) *wambo-ta* *i-mba-uk-i*
boy-ACC 1SG-VPL-search-1.IND
'I am looking for the **boys**.'

(b) *wasi?po* *on-mba-tay-mbedn* *ndaka*
child 3PL.IND-VPL-sleep-ALL.NIGHT well
'The **children** slept well all night.'



1. Introduction

Terminological issue:

- ‘Verbal number’ (Corbett 2000) / ‘Pluractionality’ (Mattiola 2019) as an (umbrella) term for 2 types: **event number** (= a non-singular occurrence of an event or action encoded by the verbal predicate) and **participant number** (= non-singular number of participants involved in a state or action encoded by the verbal predicate) (Corbett 2000: 246)
 - Can be either ‘event plurality’ or ‘participant plurality’, or both.
 - Markers that do not encode participant plurality are excluded in our study

Encoding strategies (most common cross-linguistically) (see Mattiola 2019: ch.3)

- Reduplication
- Stem alternation
- Affixation
 - Most interesting from a diachronic perspective: **affixation** and **stem alternation**



1. Introduction

- **Same plural marker used on pronouns, nouns, verbs in the languages of SA** (Krasnoukhova 2022; Krasnoukhova & Van linden In prep.)
- Also observed by Frajzyngier (1977,1997) and Newman (1990) for Chadic languages; Langdon (1992) for Yuman languages, Mithun (1988) for North American languages
- Supported by data in the *ATLAS* database (Inman *et al.* 2025), released in June 2025: **shared plural marker most common in the Americas** (and sporadically present in Australia and Africa, and nearly absent on the Eurasian continent)

The world without the Americas	7,6% (8 out of 105 sample languages)
North America (including Mesoamerica)	16,5% (19 out of 115 sample languages)
South America	11,4% (12 out of 105 sample) languages



1. Introduction

- Shared (pro)nominal and verbal plural markers

(2) Buglere (Chibchan)

(a) *muire* *isi* *ngarribega-ble-dre*
woman snake kill-REM.PST-PL
'The **women** killed a snake.' (Quesada 2012:86)

(b) *muire-dre*
woman-PL
'women' (Quesada 2012:74)

- PL always optional, irrespective of locus
- PL on verb always signals plurality of the S/A, not the O



1. Introduction

Our research questions:

RQ1: What is the extent of the phenomenon of shared plural marking?

RQ2: In order to understand the nature of these markers: what are the diachronic sources of plural marking on verbs?

RQ3: How did plural marking spread from one host category/locus to another?

2. Data



2. Data

- Based on Krasnoukhova's (2022) sample :
 - for nominal number: 100 languages (52 genealogies: 36 families + 16 isolates)
 - for verbal number: 70 languages (41 genealogies: 31 families + 10 isolates)(the samples overlap to a great extent)
- Extended by additional related languages for the Chibchan family (19 out of 27 languages) for a case-study (more families are work in progress)



3. Results



RQ1: Shared plural marking: Extent of the phenomenon

- A regular (balanced) typological sample is not telling, great variation within families
 - e.g. Barbacoan (N langs = 6)

Language	pl on PRO	pl on N	pl on V
Awa Pit	-pa (?)	---	-a, -na
Tsafiki	-la	-la	-la
Cha'palaa	-la	-la	de-
Tororó	?	-mera	?

- Formal variation even within a domain (e.g. within nominal markers, verbal markers)
 - e.g. Tupi-Guaraní (N langs = 47, part of the Tupí stock): lack of a common plural morpheme (Jensen 1999: 151), Rose (2011)
- Need for micro-typological approach (exhaustive family coverage)

Chibchan (N langs = 27)

[suppletive verbs not included]



	Subgroup	Language	pl on PRO	pl on N	pl on V
Eastern Isthmic (4)	Guaymic (2)	Buglere	<i>dre</i>	<i>dre</i>	<i>dre</i>
Eastern Isthmic (4)	Guaymic (2)	Ngäbere	<i>tre</i>	<i>tre</i>	<i>tre</i>
Eastern Isthmic (4)	Kuna (2)	Border Kuna	<i>mal</i>	<i>mal(a); gan(a)/kan(a)</i>	<i>mal(a)</i>
Eastern Isthmic (4)	Kuna (2)	San Blas Kuna	<i>mal(a)</i>	<i>mal(a)/mar; gan(a)</i>	<i>mal(a); gal</i>
Western Isthmic (4)	no-subgroup	Boruca	<i>róhk</i>	<i>róhk</i>	<i>róhk</i>
Western Isthmic (4)	no-subgroup	Teribe	<i>ga (?)</i>	<i>ga</i>	<i>lok</i>
Western Isthmic (4)	Viceitic (2)	Bribri	<i>pa</i>	<i>pa</i>	<i>alor, ulur ; dak ~-rak; -yar ~-lar</i>
Western Isthmic (4)	Viceitic (2)	Cabécar	<i>wá ; s</i>	<i>wá</i>	<i>tulámi</i>
Northern Magdalenic (5)	no-subgroup	Chimila	<i>ra (and mbʔre)</i>	<i>mbʔre, mbʔri , tikwi</i>	<i>mbʔre; ne, bre; dee/de'- , -bre, -ko</i>
Northern Magdalenic (5)	Arhuacic (4)	Cogui	<i>ing~ing</i>	<i>kũě ; lula /zhula</i>	<i>kũě</i>
Northern Magdalenic (5)	Arhuacic (4)	Arhuaco/Ika	<i>not analysable</i>	<i>džina</i>	<i>ri-/win-</i>
Northern Magdalenic (5)	Arhuacic (4)	Malayo/Damana	<i>ihk (?)</i>	<i>dina/ džina / nyina</i>	<i>nyina ; mə-...-ua ; ihk</i>
Southern Magdalenic (7)	no-subgroup	Barí	<i>ji [dʒi]</i>	<i>ji [dʒi]</i>	<i>drã (??)</i>
Southern Magdalenic (7)	Chibcha-Duit (2)	Chibcha/Muisca	<i>?</i>	<i>---</i>	<i>?</i>
Southern Magdalenic (7)	Tunebo (4)	Angostunas Tunebo	<i>in</i>	<i>in</i>	<i>in; e; o; suka; kir</i>
Southern Magdalenic (7)	Tunebo (4)	Central Tunebo	<i>in</i>	<i>in</i>	<i>sí-</i>
Votic (3)	no-subgroup	Maléku Jaika	<i>maráma</i>	<i>maráma</i>	<i>maráma</i>
Votic (3)	no-subgroup	Rama	<i>-ut</i>	<i>lut, dut</i>	<i>??</i>
no_subgroup	no-subgroup	Pech	<i>---</i>	<i>wàrya?</i>	<i>ir / er ; wa</i>



RQ2: Diachronic sources of verbal plural markers

- In a number of languages from different families (and areas) in our sample we find plural marker formally identical (or very similar) to motion or posture verbs, e.g.

Teribe (Chibchan): **lok** 'be.pl',

Angosturas Tunebo / Uwa (Chibchan): **in** 'enter.pl'

Shipibo-Konibo, Chacobo (Panoan): **bo** 'go.pl S', **be** 'come.pl S'...

Mekens (Tupian): **kwa** 'go/come.pl'

Tsafiki (Barbacoan): **la** 'come out/up'

...

- Note that we cannot exclude accidental homonymy



From a verb to a plural marker? Suggested development

Serial-verb construction (monoclausal multi-verb construction*) involving a verb of motion ('come', 'go') or a posture verb ('be', 'stand', etc.)

Path 1:

Plural suppletive stem (of motion or posture verb) loses semantics of motion/posture grammaticalizing into a dedicated plural marker, syntactically associated with the verbal predicate

Path 2:

Stem (of motion or posture verb) develops into a marker of iterativity / pluractionality first, triggering participant pl meaning. Participant pl meaning becomes dominant

- Motion and posture verbs are the most common sources for pluractional (i.e. event number) markers
for motion verbs:
TRAJECTORY > DISTRIBUTIVE > ITERATIVE
(Mattiola 2019: 154-156; Mattiola & Zanchi 2022; Mattiola & Krasnoukhova 2023)
- Their role in development of participant plurality markers is underexplored

* monoclausal multi-verb construction (Aikhenvald & Muysken 2011)



Example for Path 1

(3) Teribe (Chibchan)

dbong ī-na lok

Tiger see-PERF.3 PL

‘**They** saw a tiger.’ (Quesada 2000: 66)

[>Lit. ‘They were there and saw a tiger’].

- Intransitive positional verb *lok* ‘be plural’ (Koontz & Andersen 1975; Heinze 1979)
- Originally only as part of a serial verb construction (syntax matches the SVC syntax)
- Positional verbs in Teribe can’t take verbal / aspectual morphology themselves (Quesada 2000: 66, 131)

- Absence of verbal morphology could have been a factor ‘not hindering’ reanalysis (van Gelderen 2022: 593)
- Synchronically, *lok* functions as a **plural particle** syntactically associated with the verb, indexing plurality of S/A participants; the 3rd person subject is interpreted as plural without an external pronoun in the sentence.
- Note that nominals (nouns and pronouns) can be marked by plural marker *-ga*, but plurality of S/A is mainly indicated by *lok* following the verb



Extention Path 1: from V to N

(4) Boruca (Chibchan) [extinct]

(a) *lñ dabacrá rójc*
3-TOP arrived PL
'They arrived.' (Quesada 2018:127)

(b) *abí rójc morén rójc*
person PL good PL
'good people' (Quesada Pacheco 2018: 89)

(c) *i' rójc ki bú'k kabát rójc-íra*
3 PL top two brother PL-DUR
'They were two brothers.' (lit.: 'They, two brothers, were')
(Constenla & Maroto 1986:70 in Castro 2012:6)

Micro-typological perspective informs on direction of spread



(Source: Hammarström *et al.* 2025)

- Plural *rójc* in Boruca is a cognate of plural *lok* in Teribe (Quesada 2011:112)
- The plural *rójc* mainly indicates plurality of S/A (only one example of O plurality is found in the grammar)
- Different from the sister language Teribe, plural *rójc* is also used to mark plurality on nouns and all three personal pronouns
- The profound use of plural with nominals is atypical for Chibchan



Example for Path 2

(5) Mekens (Tupian)

(a) *o-teg=õ* *ka* *o-seesoe*
1SG-house=DAT **go/come.SG** 1SG-AUX.in.motion
'I am going home.' (Galucio 2001:55)

(b) *seteyat-set* *se-teg-õ* *kwa* *i-et*
3PL-go 3COREF-house-DAT **go/come.PL** 3-AUX.in.motion.PL
'They left, they are going home/to their own house.' (Galucio 2001:56)

(c) *popoba* *se-erek-kwa* *naat* *yě*
owl 3COREF-speak-PL.action ? AUX.sitting
'The owl was singing' (**sg S, multiple action**) (Galucio 2001:34)

(d) *se-no* *mi-kwa* *pāāt*
3COREF-other kill-PL like
'He likes to kill **others**' (Galucio 2001:55)

- Lexical verbs *ka* 'go/come' for **sg S** (6a) and *kwa* 'go/come' for **pl S** (6b)
- *-ka* and *-kwa* are also transitivity suffixes, applied to adjectives and uninflectable verb stems. The difference is that *-kwa* adds '**plurality of action**' (6c) (Galucio 2001:99-101)
- *-kwa* also encodes **participant plurality** (5d) (S or O-participant, operating on the ABS basis) (Galucio 2001:54)



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Lexical verbs of motion,
suppletive stems for
sg/pl



Event plurality



Participant plurality



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Open issue:
Participant plurality in Mekens targets S/O
participant, while in Teribe always S/A



Cross-linguistic circumstantial evidence

- **Lexical verbs: common source of grammatical markers of different categories**, e.g.
 - aspectual suffixes (e.g. Mapudungun, Zúñiga 2017: 115-119),
 - negation suffixes (> verbs with terminative semantics such as ‘finish’ in Macro-Ge (van der Auwera & Krasnoukhova 2022)
 - Associated Motion markers (Hill 2005; Elliot 2021)

- **Serial verb constructions / multi-verb constructions play a major role in the development of new morphology** in South American languages (Epps et al. forthc.) e.g.
 - middle voice marker in Yurakaré (van Gijn 2010 in Epps et al. forthc.),
 - negation suffixes in Tukanoan (Krasnoukhova et al. 2022)



RQ3: Mechanisms of spread from V to N

➤ **Extension of verbal markers to *non-verbal* predicates** (Epps *et al.* forthcoming).

e.g. Hup evidential markers encoding nonvisual and inferred information sources > verb roots within serial verb constructions and were then extended to non-verbal predicates (Epps 2005).

(6) Boruca (Chibchan)

[i' **rójc** ki] [bú'k kabát **rójc-íra]**

3 PL top two brother PL-DUR

'**They** were two brothers.' (lit.: '**They, two brothers, were**')

(Constenla & Maroto 1986:70 in Castro 2012:6)



RQ3: Mechanisms of spread from V to N

➤ Deverbal nouns and nominalizations as an intermediary stage

Nominalizations in SA are ubiquitous; nominalization is the most common strategy for forming (the functional equivalent of) subordinate clauses in SA (van Gijn, Haude & Muysken 2011), significantly more common in SA compared to the world (van Gijn 2014)



RQ3: Mechanisms of spread from V to N

➤ Deverbal nouns and nominalizations as an intermediary stage

(7) Nivacle (Matacoan)

*ja7-p'ôw-ja-yan=sham=**sha7ne***

1ACT-notch-LIG-VBLZ=through/inside=PL

'I make notches.' (Campbell *et al.* 2020: 260, p.c.)

- The marker =**sha7ne** is used on verbs to indicate plurality of the S or O (7).
- It can also encode 'event number'/iterativity, although less frequently (Campbell *et al.* 2020:260).
- This marker also occurs on adjectives (which are nouny in Nivacle) and some nouns. Crucially, all these nouns are either deverbal nouns or nominalizations (Campbell *et al.* 2020:101).

4. Conclusions



- RQ 1:
 - Verbs and nouns can share a plural marker, observed so far for ~11,4% of the languages, the real extent of this phenomenon is still to be seen: requires screening of entire families as the presence/availability of plural is not uniform
 - Plural marking - an unstable category

- RQ 2:
 - Motion and positional verbs as a diachronic source of participant plurality markers
 - Serial-verb construction (involving a motion/posture verb) as a source construction

- RQ 3:
 - Extension of verbal markers to non-verbal predicates, subsequent spread to nominals
 - Nominalization as an intermediary stage

- Further steps:
 - extend micro-typological approach to other relevant families (for alternative sources, directionality of change)

Thank you for listening!

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