

„Zählende Eindringlinge“ Zur Morphosyntax entlehnter Numeralia in vergleichender Perspektive

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Warnhinweis

Für diesen Vortrag recycle ich die Folien, die ich schon einmal am 7. Februar 2013 für einen Vortrag am CNRS in Paris verwendet habe. Da die dortige Konferenzsprache Englisch war, sind auch die Folien in dieser Sprache gehalten. Das bedeutet, dass Sie Codeswitching im akademischen Kontext live geboten bekommen werden.

Geständnis

Mein Vortrag hat wenig bis gar nichts mit dem Oberthema des Kolloquiums „Sprache und Recht“ zu, also eigentlich nur mit dem, was im Titel links von der kopulativen Konjunktion steht.

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- Historical flashback
- Printed matter
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Preface

- When I started to think about the topic at hand months ago, I was struck by the absence of any substantial crosslinguistic study dedicated to the morphosyntactic effects of the borrowing of cardinals.
- This is one of the reasons why my talk marks only the beginning of an exploratory study that must precede any serious attempt at drawing typologically significant conclusions.

Historical note

- Starting with Pott's seminal study of 1854, numerals look back on a long and venerable history as object of linguistic research from language philosophy via theoretical linguistics to functional typology.
 - Famous names such as those of Greenberg, Hurford, Comrie and many others can be found in the vast bibliography of linguistic studies devoted to numerals.
 - Of the various types of numerals that are reported to exist in human languages, cardinals have attracted by far the most attention of linguists.

A very useful text

Hurford, James Raymond. 2003.
The interaction between numerals
and nouns. In: Plank, Frans (ed.),
*Noun Phrase Structure in the
Languages of Europe*. Berlin, New
York: Mouton de Gruyter, 561-620.

Further contributions

- Corbett, Greville G. 1978. Universals in the syntax of cardinal numerals. *Lingua* 46, 355-68.
- Gorshenin, Maksym. 2012. Dependenzrelationen bei Kardinalia aus sprachtypologischer Sicht: 'Die Hunde von vier', 'vier des Hundes' oder 'das Viersein der Hunde'? In: Stroh, Cornelia (ed.), *Neues aus der Bremer Linguistikwerkstatt. Aktuelle Themen und Projekte*. Bochum: Brockmeyer, 161-74.
- Stolz, Thomas. 2002. Is 'one' still 'one' in 'twenty-one'? On agreement and government properties of cardinal numerals in the languages of Europe. *Sprachtypologie und Universalienforschung* 55 (4), 354-402.
- Stolz, Thomas; Khizanishvili, Tamar & Levkovych, Nataliya. 2007. Lexikalische Duale. Typologische Gedanken zu den Übersetzungsäquivalenten von Deutsch *beide* in crosslinguistischer Sicht. *Lingua Posnaniensis* 49, 167-94.

10 secs of an excursus on ordinals & Cie.

- Ordinal numerals are often targeted in language contact.
- There is ample evidence of their propensity to being borrowed.
- Lower ordinals and higher ordinals behave strikingly different.
- Borrowing of matter may yield suppletive paradigms, whereas borrowing of pattern may contribute to the regularization of paradigms.

Two cases

- In the Germanophone varieties of the Cymbrians in northern Italy, there is evidence of heavy Italian influence in the system of ordinals with some examples of contact-induced restructuring.
 - Suppletion arises in positions where it is blocked in standard German.
- In the Northeast Caucasian language Budukh, the entire set of ordinals is borrowed materially from Turkic Azerbaijani and thus the relation of cardinals and ordinals is rendered opaque.
 - There is wholesale suppletion.

Cymbrian ordinals

value	variety				
	Giazza	Roana	Lusern	Sebastiano	Carbonare
1	<i>earste</i>	<i>earste</i>	<i>dar earst</i>	<i>der ierst</i>	<i>der ierst</i>
2	<i>andar</i>	<i>dar zboa</i>	<i>dar andar</i>	<i>der tzwuате</i>	<i>der onder</i>
3	<i>drite</i>	<i>dar drai</i>	<i>dar drai</i>	<i>der draite</i>	<i>der draite</i>
4	<i>viarte</i>	<i>dar kwarto!</i>	<i>dar viare</i>	<i>vierte</i>	<i>wierte</i>
5	<i>vufte</i>	<i>dar kwinto!</i>	<i>dar vümve</i>	<i>wömfte</i>	<i>vumfte</i>

Budukh

value	cardinals	ordinals
1	<i>sə-</i>	<i>birinži</i>
2	<i>q'a-</i>	<i>ikinži</i>
3	<i>šub-</i>	<i>üčünžü</i>
4	<i>yuq'</i>	<i>dördünžü</i>
5	<i>fu-</i>	<i>bešinži</i>

Trivia

- That cardinal numerals are frequently subject to borrowing – both materially and covertly – is widely known among specialists of language contacts.
 - In the absence of exact quantitative data, this „knowledge“ must be understood as some kind of well-informed gut feeling though.
 - In a number of recent studies which go to the credit of Yaron Matras, a number of implications and chronologies are put forward as to the borrowability of cardinal numerals.

Louis-Jean Calvet

- In his classic book on *Linguistique et Colonialisme*, Calvet devotes a chapter to the reshaping of the numerals systems of Bambara, Dioula and Malinke.
- What he shows is that these systems have been reorganized covertly according to the strictly decimal patterns of Arabic and French.
- No visible repercussions on the morphosyntax.

Elšik/Matras 2006

- Based on evidence from a wide variety of Romani languages, Elšik/Matras try to link contact-induced changes to the notion of markedness.
 - In their discussion of cardinality, they argue that the probability of a cardinal numeral increases the higher the numerical value it represents.
 - Lower cardinals are borrowed only if higher cardinals are borrowed, too.
 - Note that this is different with ordinals!

Matras/Sakel 2007

- As with the former contribution, the focus is on the numerals qua morphologically defined word-class and not so much as a constituent of syntagms.
 - Matras (2007: 50) specifically claims that „[m]ore than two-thirds of the sample languages show some form or direct matter-replication of numerals.“
 - Thus, one should expect that morphosyntactic clashes occur relatively often.

Haspelmath/Tadmor 2009

- The questionnaire of the loanword-typology project includes 17 cardinal numerals (0-12, 15, 20, 100, 1,000).
 - Apart from skipping morphosyntactic issues entirely, the results corroborate previous hypotheses according to which higher cardinals are more easily borrowed than lower ones.
 - Many languages give no evidence of borrowed cardinals whereas those that do very frequently borrow more than only one cardinal.

This talk

- The focus of my talk today is on the effects of the integration of borrowed cardinal numerals on the morphosyntax of the NP of the replica language.
 - For practical reasons, I give special prominence of instances which involve matter replication without claiming that this is the only way in which cardinal numerals of a donor language can have an impact on the structural properties of a replica language.

Differences

- Crosslinguistically, there is considerable variation as to the morphosyntactic makeup of noun-cardinal constructions.
 - Language-internally, several noun-cardinal construction types may compete with each other or divide the labor between them.
 - Owing to this relatively high degree of language-dependent and language-independent variation, it is to be expected that, in language-contact situations, the structural solutions of a given donor language may be at variance of those of a given replica language.

Potential scenarios

If donor language and replica language organize their noun-cardinal constructions according to different morphosyntactic principles and if cardinal numerals are borrowed nevertheless, what can happen ideally is

- a) the borrowed cardinals are nativized morphosyntactically,
- b) the borrowed cardinals preserve the morphosyntactic properties they are associated with in the donor language,
- c) a morphosyntactic compromise is reached
 1. either by combining properties of both languages involved
 2. or by allowing for two largely synonymous constructions with different morphosyntactic properties.
- d) a new construction type arises which is neither rooted in the donor language nor in the replica language

Some things are more interesting than others

- What makes a contact constellation especially interesting is the genesis of structural heterogeneity, meaning: if there is a split of the system with some cardinals the morphosyntax of which remains unaffected by borrowing and other cardinals which provide evidence of contact-induced changes.
 - It is no secret that in language contact situations, entire numeral systems can be adopted by a replica language.

Data

- As far as I know, a comprehensive stock-taking of what happens to cardinal-noun constructions under the conditions of language contact has not been undertaken yet.
- Since I have only just started to develop an interest in this subject, what I can provide today is but a small selection of data which are meant to show that the phenomenology needs to be explored more thoroughly.

West Greenlandic (Fortescue 1984)

- Danish numerals commonly replace autochthonous numerals above TWELVE.
- Lower cardinals may be expressed either by genuinely Greenlandic items or their phonologically modified Danish equivalents.
 - Greenlandic cardinals can be used pre-nominally and post-nominally.
 - Danish-derived cardinals are predominantly pre-nominal (but not exclusively!).

Danish *hundrede* on the right

kilumiitiri-sut untritilit-tut ungasis-siga-aq

kilometer-EQU.PL **hundred**-EQU.PL be_far-so-3SG.INDIC

,It is a hundred kilometers away.'

Danish *hundrede* on the left

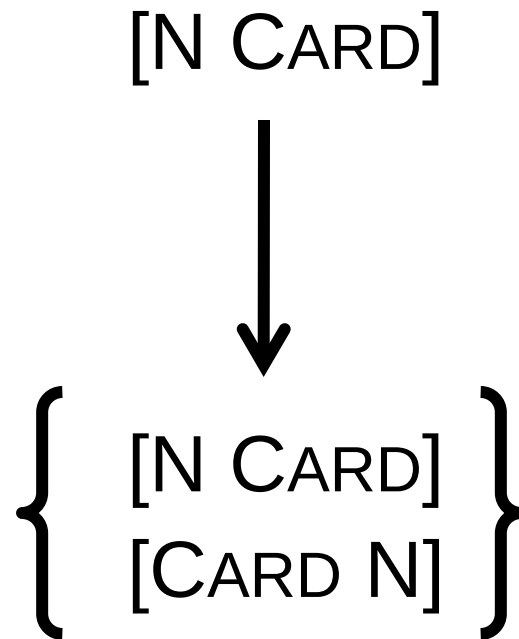
Illursuaq untriti miitiri-t purtu-ssusi-qar-tuq
 building hundred meter-PL be_high-quality-have-INTR.
 PART

‘a building a hundred meters high’

Observations

- Post-nominal cardinals usually agree with their head-nouns in case and number.
- Pre-nominal cardinals are often uninflected.
- The Danish loan-cardinals seem to be fully integrated into the morphosyntax of the replica language.
- They may have contributed to an increase of the word order pattern cardinal precedes noun.

Before and after I



Tasawaq

- An example of a contact-induced cardinal-noun word order split is provided by the Songhay language Tasawaq.
- Cardinals from 1-19 are post-nominal and thus reflect the typical word order of Songhay.
- Cardinals from 20 onwards, however, are pre-nominal which Kossmann (2007: 84) attributes to influence on the part of Tuareg.

seven/fifty wells

bàngù

well

sábàyà

seven

xàmsín ìn

fifty

GEN

bàngù

well

Notes

- The cardinal numerals are material borrowings from Arabic.
 - The construction with lower cardinals follows the word-order pattern of the replica language.
 - The construction with higher cardinals follows the word-order pattern of Tuareg.
 - In contrast to Tuareg, the quantified noun is always in the singular.
 - Post-nominal cardinals are attested in Tuareg too, though only rarely.

Before and after 2

[N CARD]



$\left\{ \begin{array}{l} [N \text{ CARD}_{[n < 20]}] \\ [CARD_{[n > 19]} \text{ in } N] \end{array} \right\}$

Problems

- Without additional evidence of matter-replication, potential cases of pattern-replication which manifest themselves in word-order variation are difficult to assess.
 - For the Chadic language Kera, for instance, Ebert (1973: 164) assumes that the occasional pre-nominal position of *mènà* 'one' cannot be explained by European influence because this divergence from the canonical word order has been observed only with elderly speakers.

Rumungro

- Elšik (2007: 271) reports two interesting contact-induced phenomena in the cardinal-noun constructions of Rumungro (as spoken in Hungary).
 - Rumungro cardinals do no longer participate in case agreement.
 - Those cardinals which are materially borrowed from Hungarian require the quantified noun to be in the singular.

Absence of case agreement

Romungro { **dúj-e murš-en-ca*
two-OBL man-PL-Soc
dúj murš-en-ca
two man-PL-Soc

Hungarian *két ember-vel*
two man-INS/COM

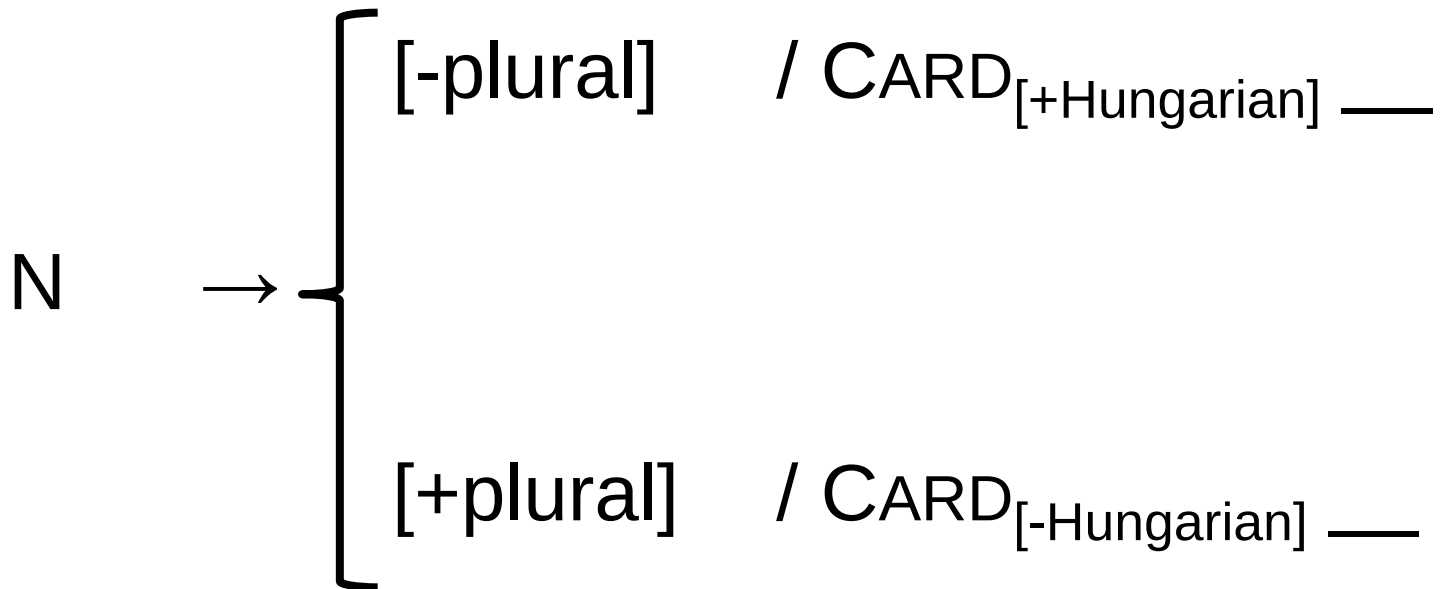
Fifty hellers

Rumungro	<i>pándžvárdeš</i>	<i>hallér-ja</i>
	fifty	Heller- PL
	<i>ëtvën</i>	<i>halléri</i>
	fifty	Heller
Hungarian	<i>ötven</i>	<i>hallér</i>
	fifty	Heller

Summary

- Like most of its sister languages in the Romani phylum, Romungro is a dependent-marking language with extensive agreement morphology.
 - Under Hungarian pressure, NP-internal agreement is suspended.
 - Inherited Romani cardinals govern the plural.
 - The integration of Hungarian loan cardinals restricts the domain of this rule.

Etymology matters



Before and after III

[CARD_{agree} N_{agree/plural}]



{ [CARD N_{plural}]
[CARD N_{singular}] }

Imbabura Quichua

- The reverse tendency can be observed with varieties of Quichua which have been exposed to influence on the part of Spanish for centuries.
 - Gómez-Rendón (2007: 488) assumes that the obligatory pluralization of nouns after cardinals above ONE in Spanish is responsible for the increase of pluralization of nouns in cardinal-noun constructions of Imbabura Quichua.

Two sons

ñuka-ka ishikai churi(-kuna) chari-ni

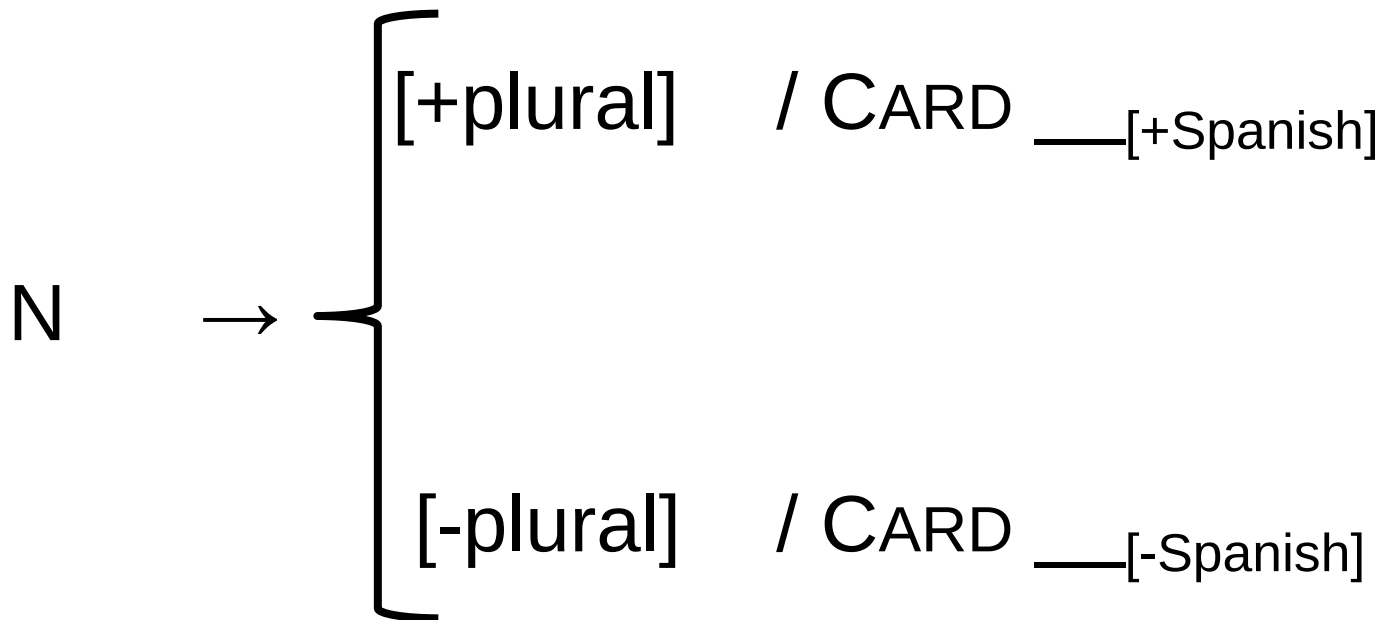
1SG-TOP two son(-PL) have-1SG

,I have two sons.'

Paraguayan Guaraní

- The same author states a parallel for Paraguayan Guaraní (without providing examples). According to Gómez-Rendón (2007b: 528) „[t]here is positive evidence, however, that Spanish-derived lexemes quantified by numerals or quantitative adjectives determine the obligatory use of the Guaraní plural marker.“

Somewhat different



Turkic

- With reference to the convergence phenomena characteristic of Turkic and its next-door neighbors, Johanson (2002: 109-10) observes that the absence of plural marking in cardinal-noun constructions is a Turkic trait that has diffused into Persian, Mongolian and Western Armenian.
 - On the other hand, he claims that „contact-induced influence does not always lead to simplification. The semantically irrelevant feature of number agreement is also easily copied. Thus, frequential copying may result in the increased or reduced use of number morphemes.
 - Under foreign influence, e.g. in exile situations, the use of number after cardinals can shift in either direction, depending on the situation. Among her Turkish informants living in Germany, Yıldız (1986: 105-6) notes a strong orientation towards the German plural system.“

Before and after IVa

[CARD N_{singular}]



{ [CARD N_{singular}]
[CARD N_{plural}] }

Before and after IVb

[CARD_[n>1] N_{plural}]



[CARD N_{singular}]

Yucatec Maya

- Christel Stolz (1996: 66-72) describes the morphosyntax of numeral classifiers in Yucatec Maya.
 - She observes that „when counting above three or four in Yucatec, borrowed Spanish numerals are used. They do not obligatorily combine with numeral classifiers, only Yucatecan numerals do. There is a way, however, to combine Spanish numerals with numeral classifiers.“

Direct combination numeral + classifier

Ch'a' hum-p'éel chan ba'l áasul-e'...

take one-CL.IA little thing blue-C

,Take a little blue thing (and)...'

Spanish cardinal + noun

[Lucy 1992: 51]

dyèes

ten

,ten men‘

(*u* *túul-ul*)

(A.3 CL.AN-RR)

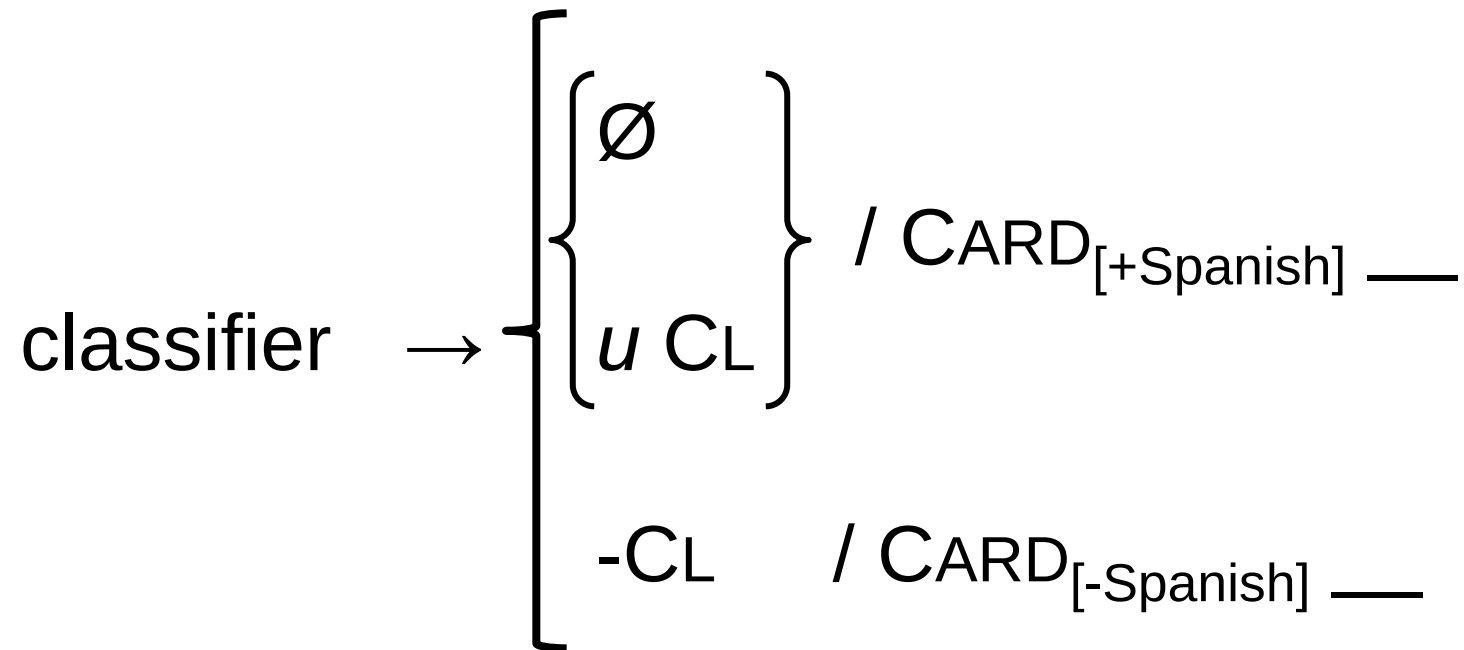
máak

person

By way of explanation

„A Spanish numeral cannot directly combine with the numeral classifier, but only when the numeral functions as a predicate. The numeral classifier is then obligatorily preceded by the third person possessor clitic and followed by a variant of the relational suffix, -*VI* which enables alienable, but convertible nouns to enter into possessive constructions in Yucatec.“ (C. Stolz 1996: 71)

Three options



Before and after V

[CARD-CL N]



$$\left\{ \begin{array}{l} [\text{CARD}_{[n<4]}-\text{CL N}] \\ [\text{CARD}_{[n>3]} (u \text{ CL}) \text{ N}] \end{array} \right\}$$

Chamorro

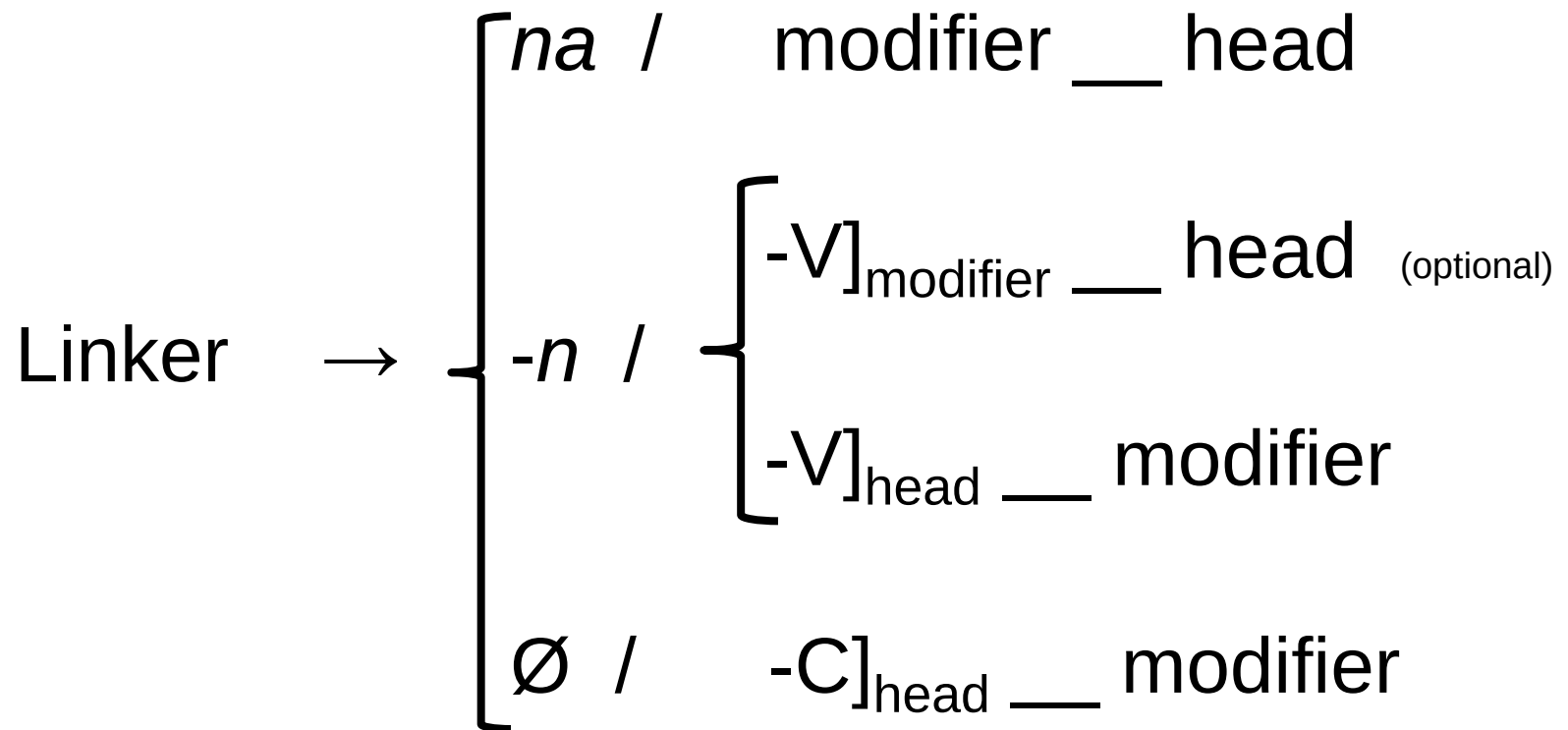
- The Hispanization of the numeral system of Chamorro has been described comprehensively by Rodríguez-Ponga (2001, 2009).
 - Chamorro has borrowed the entire set of cardinals from Spanish.
 - Nevertheless, there are morphosyntactic differences between lower and higher numerals.

Linker particle

In the NP of Chamorro, (all kinds of) attributes and heads are normally overtly connected to each other by a so-called linker particle which comes in three shapes:

- a) full form: *na* (default form)
- b) enclitic: *-n*
- c) Zero

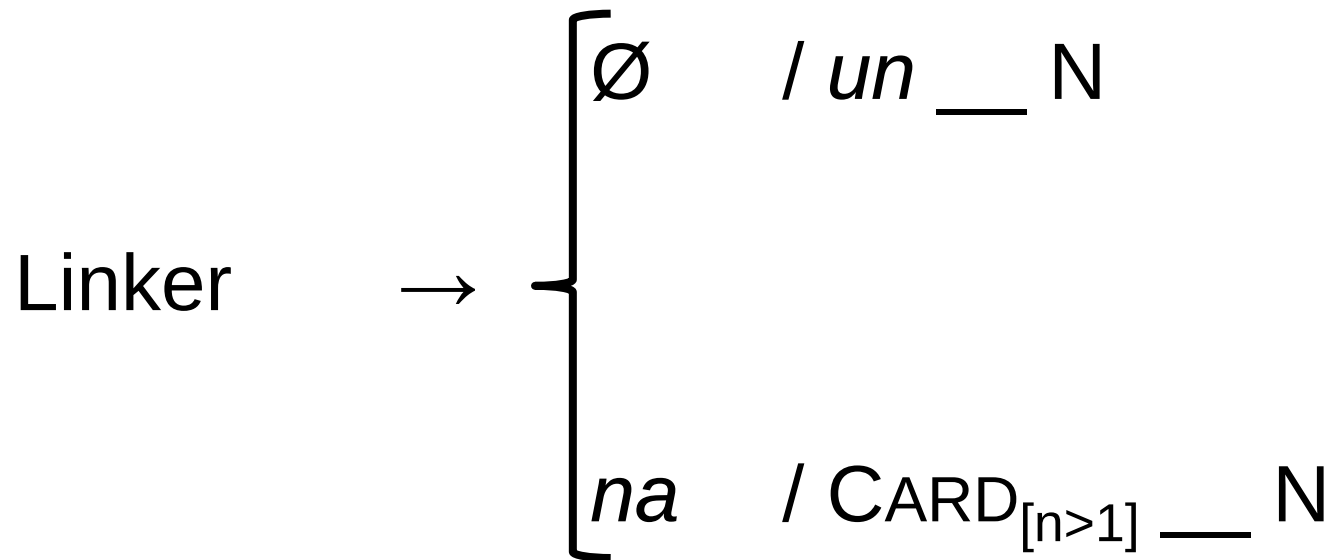
Rules



Topping (1973)

<i>un</i>	Ø	<i>patgon</i>	‚one child‘
<i>dos</i>	<i>na</i>	<i>patgon</i>	‚two children‘
<i>tres</i>	<i>na</i>	<i>paluma</i>	‚three birds‘
<i>katotse</i>	<i>na</i>	<i>chada‘</i>	‚fourteen eggs‘

That's what he says



Heterogeneity

- Rodríguez-Ponga (2009: 173) critically surveys the different opinions on the morphosyntax of cardinal-constructions in Chamorro.
- The linker *na* is considered obligatory
 - a) with all cardinals including *un* 'one',
 - b) with all cardinals except *un* 'one',
 - c) with all cardinals above *dos* 'two',
 - d) with all cardinals above *tres* 'three'.

Variation

[Esterá si Rai, 40]

*Ya atan ha' **i tres tason**. Unu, dos, tres. **Tres na tason**. Un tason dankolo, un tason midianu yan **unu na tason** dikike'. **Tres na tason** ahu.*

,And look the three bowls. One, two, three. Three bowls. A big bowl, a middle-sized bowl and a small bowl. Three bowls (full of) coconut meat.'

A fairy-story beginning

Un tiempo man-estaba tres siha na osu.

a time PL-EXI.PERF three PL LINK bear

‘Once upon a time, there were three bears.’

With definite article

I tres na osu ma(n)-ña~saga gi un dikike' na guma'
the three LINK bear PL-RED-live in a small LINK house
,The three bears were living in a small house.'

Spanish surroundings

unu, dos, tres, kuatro, sinko minutos

one two three four five minute

,one, two, three, four, five minutes‘

Multi-word collocations

- If the cardinals combine with Spanish-derived nouns – mostly but not necessarily as collocations or fixed expressions – the linker particle is usually absent from the construction.
- This phenomenon typically occurs with measure words including calendardic expressions.

Before and after VI

[CARD *na* N]



{ [CARD_[n<4] N]
[CARD_[n>3] *na* N] }

Welsh

- The Welsh case is special insofar as the morphosyntax of cardinal-noun constructions has been changed in a top-down fashion, i.e. language planners have decided to introduce new rules which are patterned according to the English model.
 - Owing to the intricacies of the quinary-vigesimal counting system and the internal structure of the complex higher numerals, pupils had a hard time to master the traditional Welsh system and increasingly used English cardinals instead.

Sandwich

un *ferch*

one girl

‚sixteen girls‘

ar *bymtheg*

on fifteen

Neatly separated

un deg chwech merch(-ed)
one ten six girl(-PL)
,sixteen girls‘

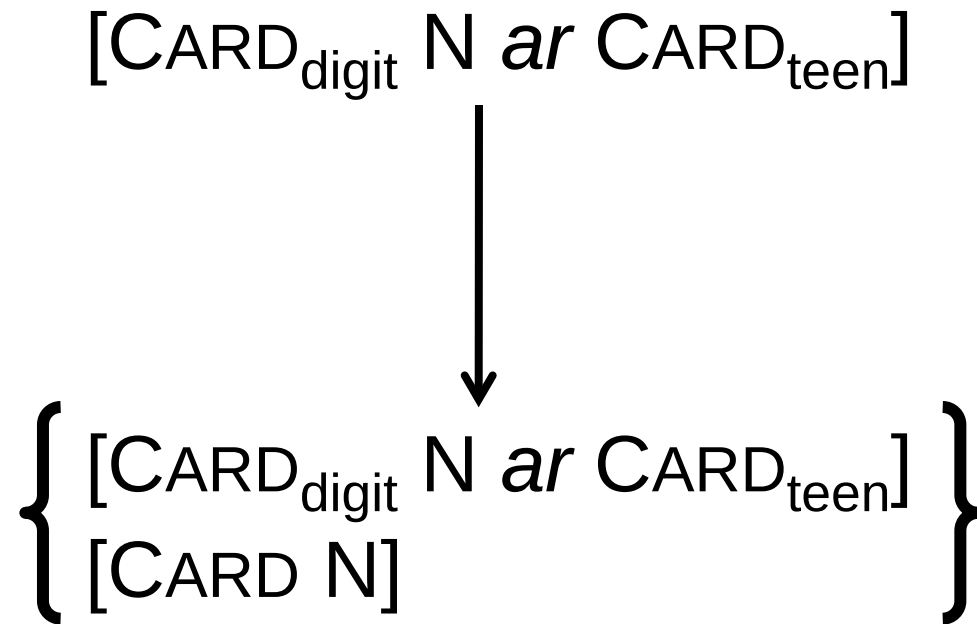
Clarification

- In the traditional system, higher numerals consist of a constituent on the left – representing the digit – and a prepositional phrase on the left the complement of which indicates the teens.
- In between these two components, there is the slot of the quantified noun which is subject to initial consonant mutation after the first three cardinals.

Innovation

- The new system leaves no space for discontinuous complex numerals.
- The leftmost slot of the syntagm is reserved for the cardinal.
- Both systems co-exist as stylistical options.
- In both systems, plural marking on the noun is largely optional.

Before and after VII



Summary

- Overt as well as covert borrowing of cardinal numerals can have repercussions on the morphosyntax of cardinal-noun constructions in the replica language.
 - Word order can be affected by contact-induced changes as can NP-internal agreement, government relations and co-occurrence restrictions.
 - This means that almost all important structural domains may be subject to changes triggered by language contact.

Complexity

- In most of the case-studies, the introduction of donor-language elements either via material borrowing or pattern-replication has added to the complexity of the system of the replica language because
 - more rules have to be applied to a functionally homogeneous domain and
 - different construction types have to be mastered.
 - In this way, the morphosyntax of cardinal-noun constructions is rendered heterogeneous.
 - The word-class cardinal numeral splits into several sub-classes.

Conclusions

- I have not looked at any typologically relevant structural properties which might have a say in what can happen to an NP in language contact.
 - Whether or not there are constraints which limit the extent contact influence in cardinal-noun constructions remains to be seen in the future.
 - To achieve this goal, the empirical basis has to be enlarged considerably.
 - Since many of the phenomena belong to the oral register, the collection of data will prove to be a demanding task.