

Quantificational Case in Finno-Ugric

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Syntactic Structure of Uralic Languages, CIFU XII

Some FU numerals are case-assigners

Numerals in Finnish, Estonian, & (Inari) Sami assign case to N.

- (1) ne kolme auto-a
those three car-part.sg
those three cars Finnish
- (2) kaks sõduri-t
two.nom.sg soldier-part.sg
two soldiers Estonian
- (3) a. nelji poccuu
four reindeer.acc.sg
four reindeer
b. kyehtnubáloh poccud
twelve reindeer.part.sg
twelve reindeer Inari Sami

Other languages with case-assigning numerals

Slavic, Ossetic, Arabic numerals also assign case

- (4) pjat' vengerskix knig
 five.nom hungarian-gen.pl book-gen.pl
 five Hungarian books Russian
- (5) æxæz xos-y t'yfyl-y
 six hay-gen pile-gen
 six piles of hay Ossetic
- (6) a. wa:ħid-un wa-ŋišr-u:na **tillmi:ð-an**
 1-msc.sg.nom and-20-nom pupil-msc.sg-acc.ind
 21 male pupils
- b. xams-at-u rija:l-in
 five-fem-nom men-masc.pl-gen-ind
 five men Arabic

Claims

- Caha's analysis for Czech in terms of case-stacking + ellipsis can be largely carried over to FU
- there are things we can discover about quantificational case from FU but not from Slavic

Roadmap

- FU data in more detail
- The case hierarchy
- Czech data and their analysis by Caha
- Caha's analysis and FU
- Summary

Finnish (Brattico 2008, 2010, 2011)

numerals (except for *one*) assign Partitive

- (7) ne kolme **auto-a**
 those three car-part.sg
 those three cars

Nom and Acc environment: quantificational case prevails

- (8) kolme **auto-a** aja-a tiellä
 three car-part.sg drive road.ade
 Three cars drive on the road

- (9) Pekka katsoli nii-tä kolme-a pien-tä **talo-a**
 Pekka watches those-part three-par small-par house-par
 Pekka watches those three small houses

Finnish

oblique environment: oblique case prevails

- (10) nii-ssä kolme-ssa piene-ssä **talo-ssa**
 those-ine three-ine small-ine house-ine
 in those three small houses

Case strength in Finnish

- (11) Nom, Acc < Part < Dative and oblique

Estonian (Rutkowski 2001)

numerals (except for *one*) assign Partitive

- (12) kaks sõduri-t/*sõdur/*sõduri-d
two.nom.sg soldier-part.sg/*soldier.nom.sg/*-nom.pl
two soldiers

Nom and Acc environment

- (13) Kaks sõduri-t tul-i-d
two[nom] soldier-par come-pst-pl
Two soldiers came
- (14) Näg-i-n kahte sõduri-t
see-pst-1sg two.par soldier-par
I saw two soldiers

Estonian

oblique environment

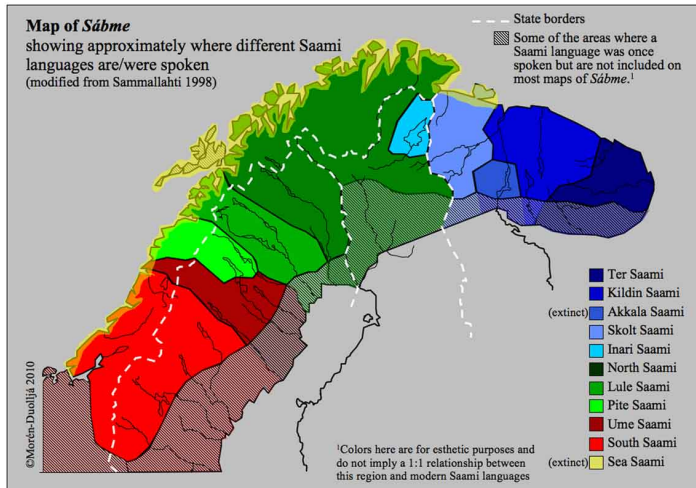
- (15) kahe-lt sóduri-lt
two-abl soldier-abl
from two soldiers

Case strength in Estonian

- (16) Nom, Acc < Part < oblique

Inari Sami on the map

Eastern Sami language, influenced by North Sami



Inari Sami (Nelson and Toivonen 2002)

2 to 6 assign Accusative, higher numerals assign Partitive

(17) nelji poccuu
four reindeer.acc.sg
four reindeer

(18) kyehtnubáloh poccud
twelve reindeer.part.sg
twelve reindeer

Nominative environment: quantificational case wins

(19) Kyehti **poccuu** lava meecist.
two reindeer-acc be-3du forest-loc
Two reindeer are in the forest.

(20) Meecist laa kávcí **puásuid**.
forest-loc be-3pl eight reindeer-part
There are eight reindeer in the forest.

Inari Sami

Accusative environment: quantificational case wins

- (21) Tun oinih kyehtnubáloh **poccud**.
 you saw.2sg twelve reindeer.part.sg
 You saw twelve reindeer.

Oblique environment: oblique case wins

- (22) Mun adelim kiirjijd viiðâ/kávci **almái**.
 I gave book.acc.pl five/eight man.ill.sg
 I gave books to five/eight men.

Case strength in Inari Sami

- (23) Nom < Acc < Part < oblique

Summary: Finno-Ugric

- | | | |
|------|----------------------------|------------|
| (24) | Nom, Acc > Part < oblique | Finnish |
| (25) | Nom, Acc < Part < oblique | Estonian |
| (26) | Nom < Acc < Part < oblique | Inari Sami |

Summary of Finno-Ugric

- (27) Nom < Acc < Part < oblique

→ quantificational case 'works' the same way across FU

A bifurcation is insufficient

Oblique case on NP always blocks the assignment of structural case to that NP?

No because 3-way contrast: Nom, Acc < Part < obl

If quantificational case is structural: why does it override Nom and Acc?

If quantificational case is oblique: why it is overridden by oblique cases?

Cases have a hierarchy

Blake (1994): typological hierarchy

(28) Nom < Acc/Erg < Gen < Dat < Loc < Abl/Inst < others

Bejar and Massam (1999): growing featural complexity

(29) structural < inherent

Matushansky (2012): growing featural complexity

(30) Nom < Dat < Transl < Subl

Assmann et al (2013): growing featural complexity

(31) Nom < Acc < Gen < Abl < Dat

Asbury (2008): syntactic hierarchy

(32) Nom < Acc < Gen/Part < Local cases

The Caha approach

Blake (1994): typological hierarchy

(33) Nom < Acc/Erg < Gen < Dat < Loc < Abl/Inst < others

Caha (2009): featural/syntactic hierarchy

(34) Nom < Acc < Gen < Part < Dat < Abl < Inst < Comit

cumulative case decomposition: "the number of features characteristic for each case has to grow monotonically as we move along the contiguity sequence"

Nom [A]

Acc [A,B]

Gen [A,B,C]

Part [A,B,C,D]

Dat [A,B,C,D,E]

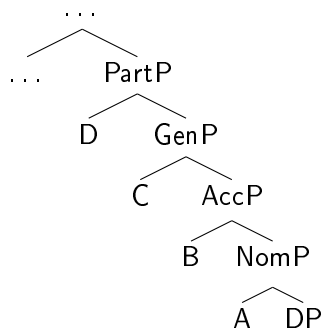
etc.

→ higher cases properly contain lower cases

The Caha approach

Implementation: each feature heads a syntactic projection

(35)



The Czech facts

5 through 10 (and 100 and 1000) assign Genitive plural

- (36) pět chlap-ů
 five.nom/acc guys-gen.pl
 five guys

Structural environment:

- (37) pět chlap-ů/*chlap-i/*chlap-y
 five.nom/acc guys-gen.pl/guys-nom.pl/guys-acc.pl
 five guys

Oblique environment:

- (38) Dal to pět-i chlap-ům/*chlap-ů
 he gave it five-dat guys-dat/guys-gen.pl
 He gave it to five guys.

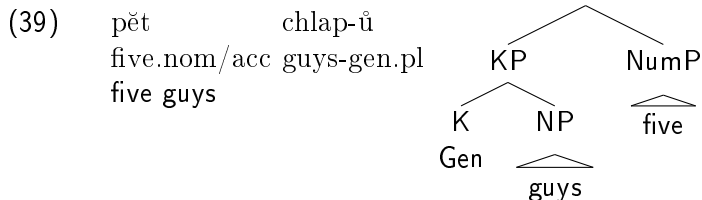
Case strength: Nom, Acc < Gen < oblique (→ like in FU)

Caha's analysis of Czech

- Czech numerals are portmanteaus for N and Num

five = NumP

- the counted noun('s NP) is merged as a possessor
- hence it bears Genitive like other possessors

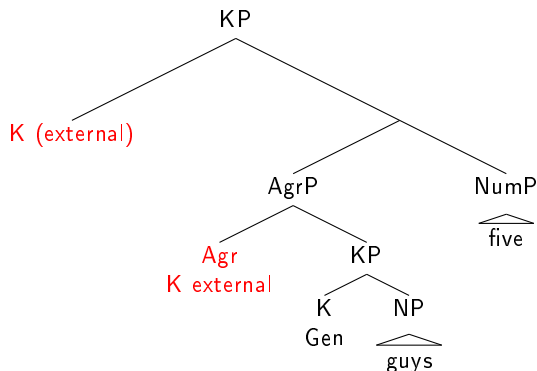


Caha's analysis of Czech

Reason of case alternation: case stacking (cf. Pesetsky 2013)

(40) five guy-Gen

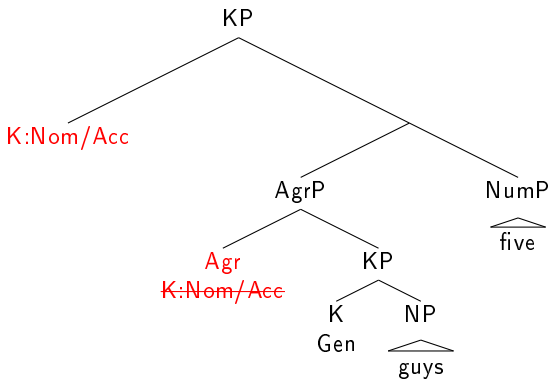
(41) five-**ext.case** guy-Gen-**ext.case**



Determining the winning case

- ① one case may remain on the surface
- ② ellipsis applies to the smaller case

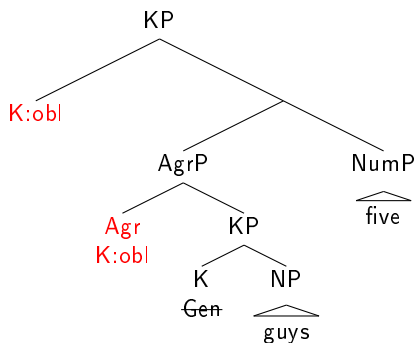
structural case environment: five-Nom/Acc guy-Gen-Nom/Acc



Determining the winning case

- 1 one case may remain on the surface
- 2 ellipsis applies to the smaller case

oblique case environment: five-Obl guy-Gen-Obl



FU: bigger case wins over smaller case

- (42) Nom, Acc > Part < oblique Finnish
- (43) Nom, Acc < Part < oblique Estonian
- (44) Nom < Acc < Part < oblique Inari Sami

Summary of Finno-Ugric

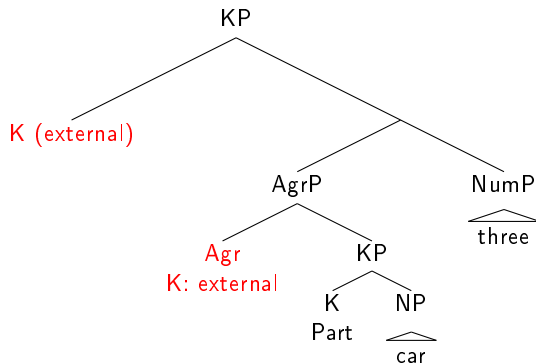
- (45) Nom < Acc < Part < oblique

Caha (2009)

- (46) Nom < Acc < Gen < Part < Dat < Abl < Inst < Comit

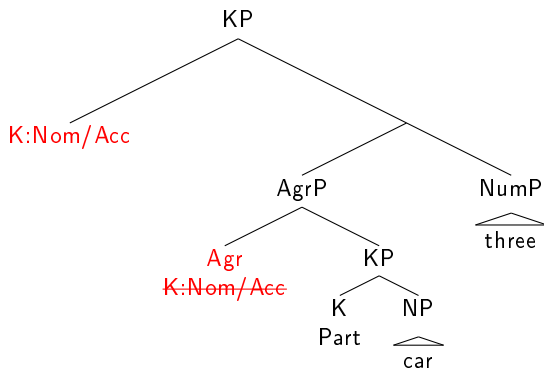
Finnish NumPs with case stacking

(48) three-*ext.case* car-*Part-ext.case*



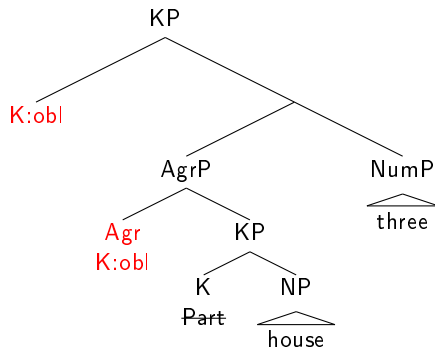
Finnish structural case environments

- (49) kolme **auto-a** aja-a tiellä
 three car-part.sg drive road.ade
 Three cars drive on the road



Finnish oblique case environments

- (50) kolme-ssa **talo-ssa**
 three-ine house-ine
 in three houses



The Genitive problem

(51) Nom < Acc < **Gen** < **Part** < Dat < Abl < Inst < Comit

(52) kahe sõduri
two.gen soldier.gen
of two soldiers

Estonian

(53) Nom < Acc < **Part** < **Gen** < Dat < Abl < Inst < Comit ?

Finnish: quantificational case \neq possessor case

quantificational case (Part) \neq possessor case (Gen)

- (54) ne kolme auto-a
 those three car-part.sg
 those three cars
- (55) Mari-n auto
 mary-gen car
 Mary's car
- (56) Pekka-lla on auto
 Pekka-ade be.3sg car.nom
 Pekka has a car.
- (57) Auto-ssa on uude-t renkaa-t.
 car-in be.3sg new-pl.nom wheel-pl.nom
 The car has new wheels.

Estonian: quantificational case \neq possessor case

quantificational case (Part) \neq possessor case (Gen)

(58) Näg-i-n kahte sõduri-t
 see-pst-1sg two.par soldier-par
 I saw two soldiers.

(59) professori raamat
 professor.gen book.nom
 the professor's book

(60) rebastel on urud
 fox.pl.adess be.3pl lair.pl.nom
 foxes have lairs

Inari Sami: quantificational case \neq possessor case

quantificational case (Acc, Part) \neq possessor case (Gen)

- (61) nelji poccuu
four reindeer.acc.sg
four reindeer
- (62) kyehtnubáloh poccud
twelve reindeer.part.sg
twelve reindeer
- (63) Nieidâ ustâv lii vaaibâm.
girl.gen.sg friend.acc.sg is tried
The girl's friend is tired.
- (64) Muste laa luttâ poccuu
I.loc are.3pl six reindeer.acc.sg
I have three reindeer.

Num assigns the case of N-complements I

(65) Nom < Acc < Gen < Part < Obl
 Sami poss.or Finnish/Estonian/Sami

→ unlike in Slavic, quantified Ns in FU are not amenable to a possessive analysis

Why does the quantified N get Part?

Finnish: Part is the default complement case

(66) säkki peruno-ita
 sack potato-part.pl
 a sack of potatoes Finnish

→ counted N is an N-complement but not a possessor

Num assigns the case of N-complements II

- (67) klaas veini
 glass wine.part
 a glass of wine Estonian
- (68) ? Inari Sami

the counted N gets the case of N-complements in Slavic, too

- (69) skupin-a chlap-ů
 group.nom guys-gen.pl
 a group of guys Czech

→ viewing the counted N as a possessor is possibly wrong in Slavic as well

Inari Sami low numerals

Inari Sami: 2 thorough 6 assign Acc, higher Nums assign Part

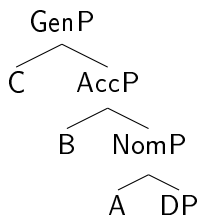
Case difference:

- genuine difference
- unified case assignment by Nums obscured by a transformation or by a surface phenomenon

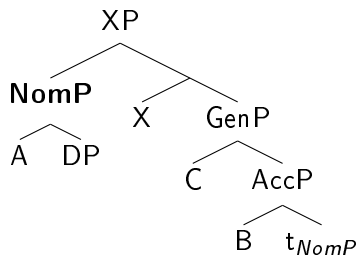
Peeling

Gen → Nom conversion

(70)

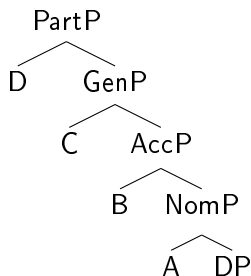


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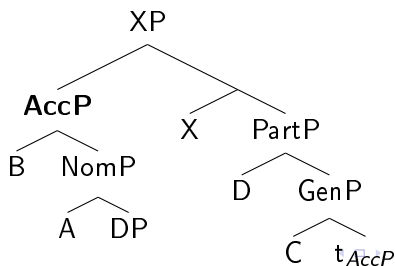


Inari Sami & Peeling: Part to Acc

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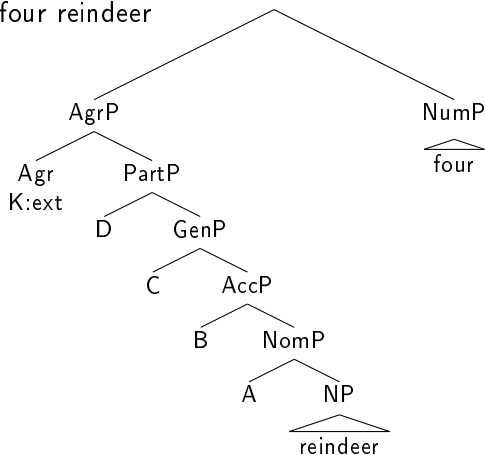


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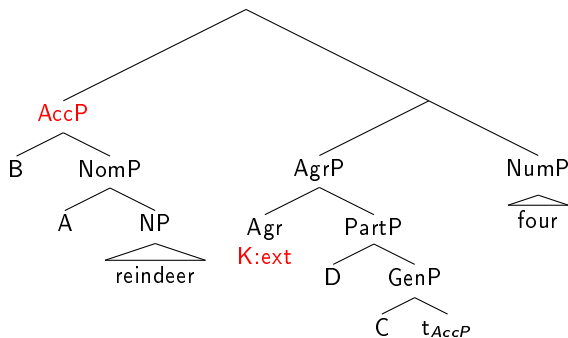


Inari Sami low Num: Part assignment

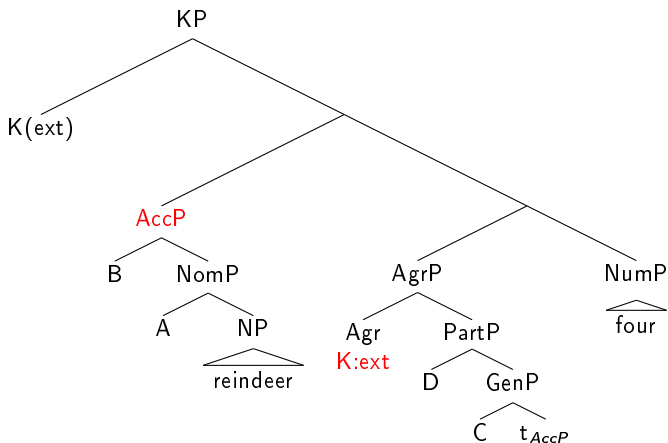
- (74) nelji poccuu
 four reindeer.acc.sg
 four reindeer



Inari Sami low Num: Peeling



Inari Sami low Num: merger of external K



special property of low numerals: trigger AccP movement

Summary

- Case strength in FU lines up with Caha's containment hierarchy of cases and Blake's typological case hierarchy
- exception: ordering of Genitive and Partitive
- FU suggests that the counted N is not a possessor
- Caha's case theory raises the possibility that Inari Sami low numerals assign Partitive case, in fact

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Acknowledgements

Thank you!

EMMI – Nemzeti Kulturális Alap

postdoctoral grant of the Hungarian Academy of Sciences

Anne Tamm