

Nanosyntax

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FSFSFS

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Outline

Ossetic numerals

What kind of deletion?

Deriving the syncretism scale

How deletion works

NP-structure in Ossetic

Supporting evidence

Summing up

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- (1) Ossetic (Abaev 1964: p.22)
- a. dæs bon-y
ten day-GEN.SG
'ten days' (nominative/accusative)
 - b. dæs bon-æn
ten day-DAT.SG
'to ten days' (dative)
 - c. dæs bon-æj
ten day-INS.SG
'with ten days' (instrumental)

The analysis

- (2) Two crucial components
 - a. Two cases are assigned

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 - b. One is elided (strength scale = syncretism scale)

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- (3) a. numeral [noun-GEN]

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 - a. numeral [noun-GEN]
 - b. [numeral noun-GEN]-CASE

The analysis

- (2) Two crucial components
 - a. Two cases are assigned
 - b. One is elided (strength scale = syncretism scale)

- (3)
 - a. numeral [noun-GEN]
 - b. [numeral noun-GEN]-CASE
 - c. [numeral noun-~~GEN~~]-CASE

Two cases assigned

- (4) Suspended affixation in Iron Ossetic numerals (Erschler 2018: 25)
- a. ærtæ læppu-jyl æmæ cyzg-yl
three boy-ADE and girl-ADE
'three boys and a girl' (adessive)
 - b. ærtæ læppu-jy æmæ cyzg-yl
three boy-GEN and girl-ADE
'three boys and a girl' (adessive)

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A phonological deletion?

(5) A possible analysis of the numeral paradigm

- a. dæs bon-y-∅
ten day-GEN-NOM
'ten days' (nominative/accusative)
- b. dæs bon-y-æn
ten day-GEN-DAT
'to ten days' (dative)
- c. dæs bon-y-æj
ten day-GEN-INS
'with ten days' (instrumental)

Table: Iron Ossetic declension, fragment (Belyaev 2014: 33)

	head, SG.	rat, SG.
NOM	cær-∅	uyry-∅
ACC	cær-∅	uyry-∅
GEN	cær-y	uyry-jy
LOC (INE)	cær-y	uyry-jy
DAT	cær-æn	uyry-jæn
INS (ABL)	cær-æj	uyry-jæj
ALL	cær-mæ	uyry-mæ
ADE	cær-yl	uyry-jyl
EQU	cær-au	uyry-jau
COM	cær-imæ	uyry-jimæ

Table: Iron Ossetic declension, fragment (Abaev 1964: 19-20)

	head, SG.	head, PL.
NOM	cær-∅	cær-tæ-∅
ACC	cær-∅	cær-tæ-∅
GEN	cær- y	cær-t -y
LOC (INE)	cær- y	cær-t -y
DAT	cær- æn	cær-t -æn
INS (ABL)	cær- æj	cær-t -æj
ALL	cær- mæ	cær-tæ- m
ADE	cær- yl	cær-t -yl
EQU	cær- au	cær-t -au
COM	cær- imæ	cær-t -imæ

Consonant initial

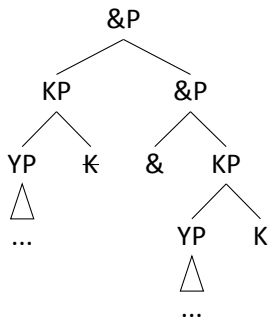
- (6) dæs bon-mæ
ten day-ALL

- (7) Iron Ossetic (Erschler 2012: 165)
- a. bæx-t-imæ æmæ gæl-t-imæ
horse-PL-COM and ox-PL-COM
 - b. bæx-tæ æmæ gæl-t-imæ
horse-PL and ox-PL-COM
'with horses and oxen'
 - c. *bæx-t æmæ gæl-t-imæ
horse-pl and ox-pl-com

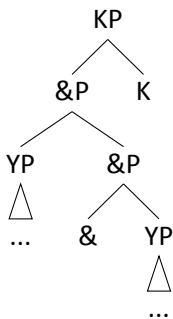
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three boy-GEN and girl-ADE
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- c. ærtæ læppu æmæ cyzg-yl
three boy and girl-SUP
'three boys and a girl' (adessive)

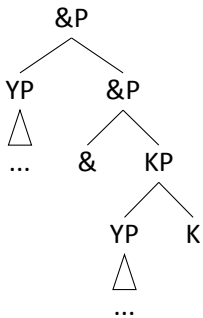
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A pretty deletion

- (12) Ngunha yana-nyja nganaju-rla marnti-yu-rla ngurra-rla
that.NOM go I.DAT-ALL father-DAT-ALL camp-ALL
'He went to my father's camp.' (Jiwarli, Austin 2015: 61)

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- (13) warn nganaju-nha ngurra panyi-ma
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- (14) thuthu-wu purrarti-yi(*-yi)
dog-DAT woman-DAT(*-DAT)
'(of/to) the woman's dog' (Jiwarli, Plank 1995: 68)

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- (15) juma jirrilarri-a thuthu-wu nganaju-wu yakan-ku-wu
child.ABS be.afraid dog-DAT I.DAT-DAT spouse-DAT-DAT
'The child is afraid of my wife's dog' (Jiwarli Austin 1995: 373)

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An ugly deletion

- (17) lok ngirrupa(*-kini)-wu
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'to my place' (Kungarakany, Plank 1995: 69)
- (18) Deletion under non-identity: NOUN- α - β \rightarrow NOUN- β

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- (17) lok ngirrupa(*-kini)-wu
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- (18) Deletion under non-identity: NOUN- α - β \rightarrow NOUN- β
- (19) 5 boys-GEN-LOC

Prettifying ugly deletions

Table: Cummulative feature decomposition

CASE	FEATURES
NOM	F1
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- (20) a. NOUN - GEN - LOC
b. NOUN - [F1, F2, F3] - [F1, F2, F3, F4]

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- a. NOUN - GEN - LOC
- b. NOUN - [F1, F2, F3] - [F1, F2, F3, F4]
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- ▶ An additional benefit:
 - ▶ We have a theory of case competition without the need to postulate a rule of ‘case competition’

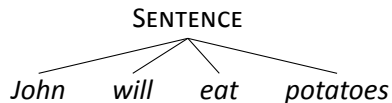
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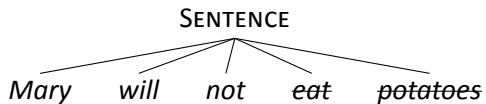
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 - ▶ In fact, if features decompose like this, and the grammar contains a general ‘ellipsis rule,’ case competition turns from something murky and mysterious to a predicted phenomenon.

How does deletion work?

(22) a.

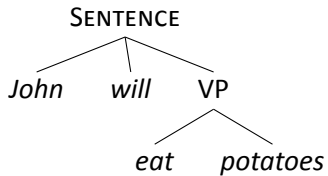


b.

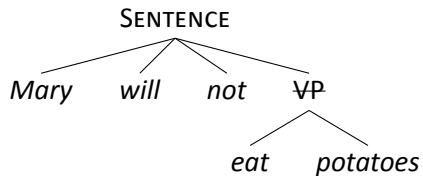


(23)

a.

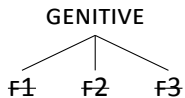


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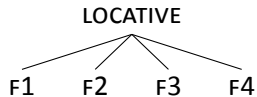


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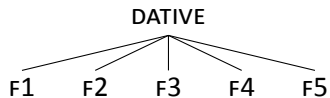
a.



b.

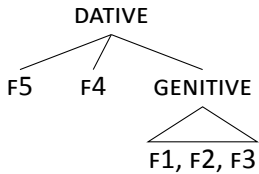


c.

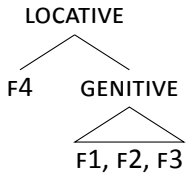


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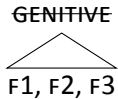
a.



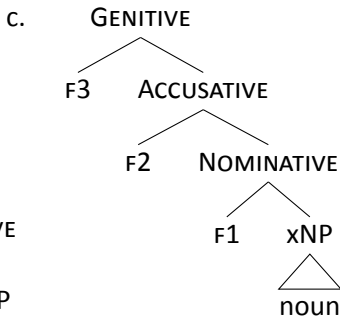
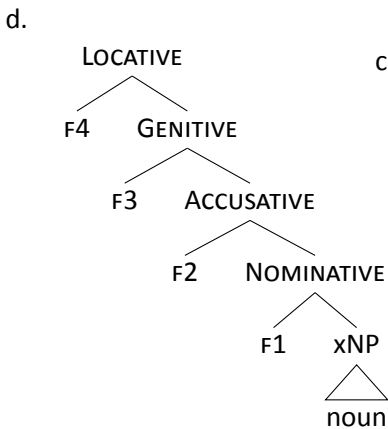
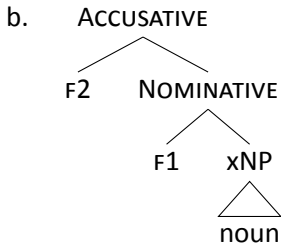
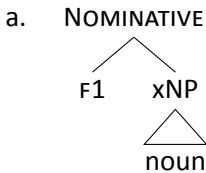
b.



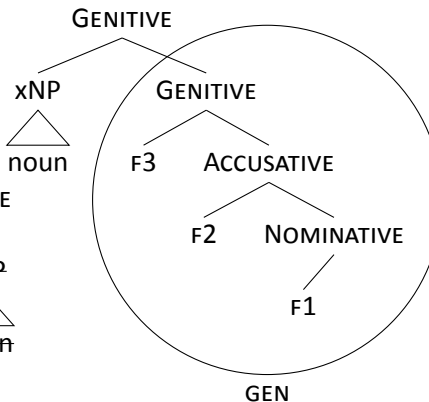
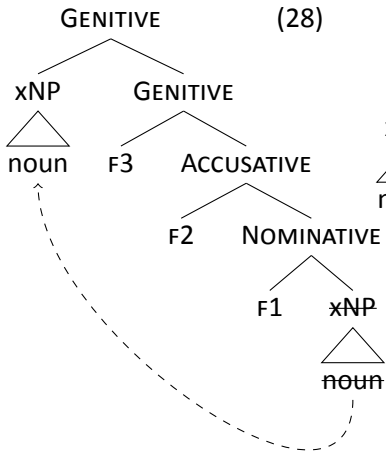
c.



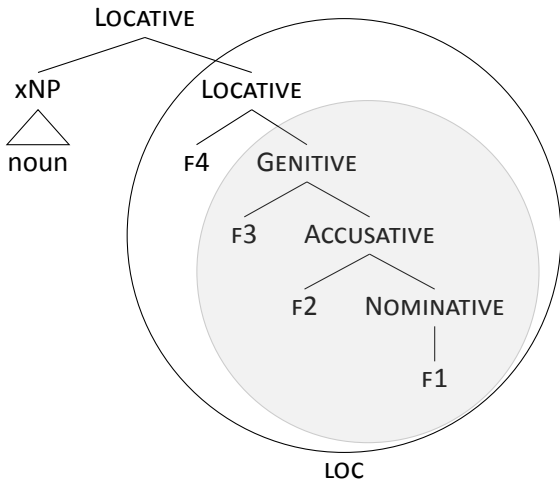
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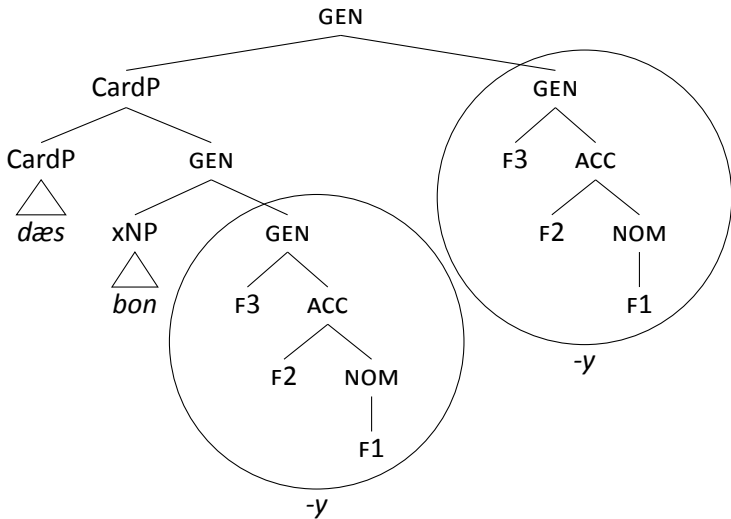
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(29)



(30)



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Declension

Table: Iron Ossetic declension, fragment (Abaev 1964: 19-20)

	head, SG.	head, PL.
NOM	cær-∅	cær-tæ-∅
ACC	cær-∅	cær-tæ-∅
GEN	cær-y	cær-t -y
LOC (INE)	cær-y	cær-t -y
DAT	cær-æn	cær-t -æn
INS (ABL)	cær-æj	cær-t -æj
ALL	cær-mæ	cær-tæ-m
ADE	cær-yl	cær-t -yl
EQU	cær-au	cær-t -au
COM	cær-imæ	cær-t -imæ

No Concord

(31) Iron Ossetic (Abaev 1964: 124)

- a. mæ zæronð fyd
my old father
- b. mæ zæronð fyd-æn
my old father-DAT
'my old father'

(32) Iron Ossetic (Erschler to appear)

- a. tyng bærzond xox
very tall mountain
'a/the very tall mountain'
- b. tyng bærzond xæx-tæ-m
very tall mountain-PL-ALL
'to the very tall mountains'

(33) Iron Ossetic (Abaev 1964: 28)

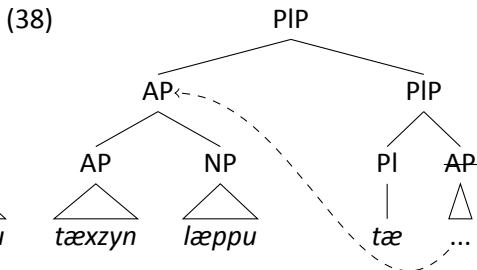
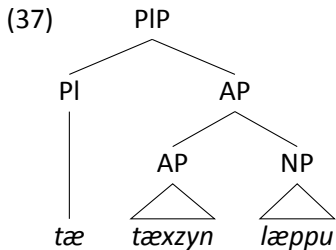
- a. acy bon
this day
'this day'
- b. acy bon-tæ
this day-PL
'these days'
- c. acy bon-t-y
this day-PL-LOC
'in these days'

The demonstrative precedes the adjective, as shown in (34). The order is strict.

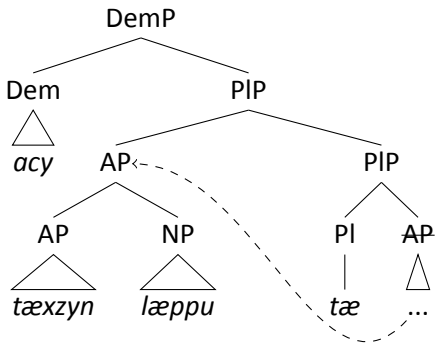
(34) acy stær (*acy) bel
this big this spade
'this big spade' (Erschler to appearb)

(35) tæxzyn læppu-tæ
 strong boy-PL
 'strong boys' (Erschler 2018: 12)

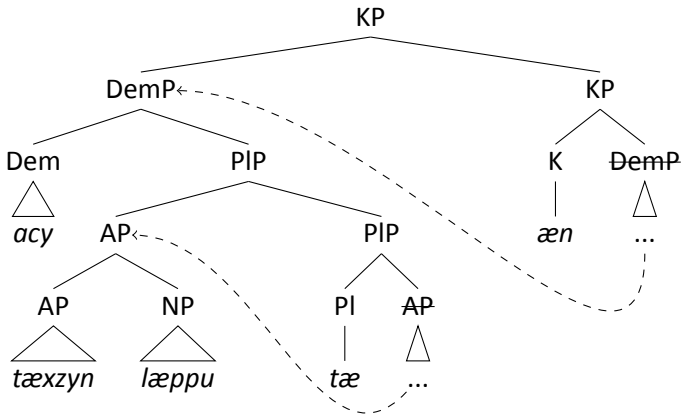
(36) [[A N] PL]



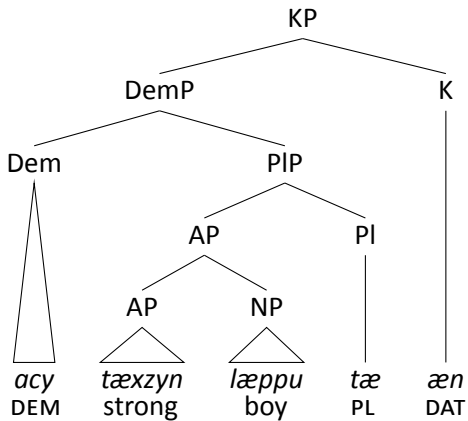
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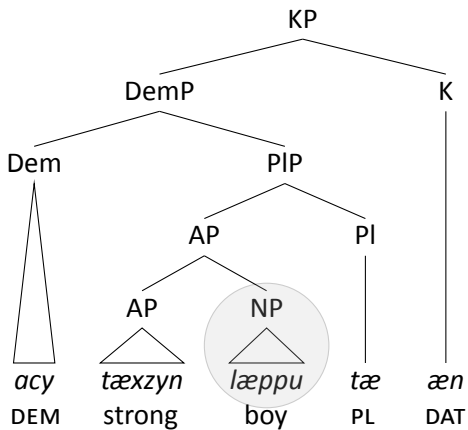
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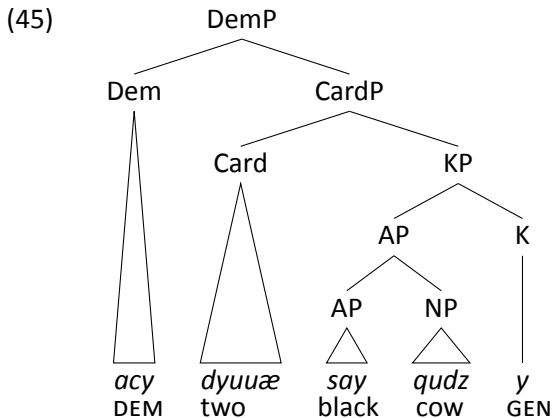
(42) Iron Ossetic (Hettich 2002: 55)

- a. syppar tyxcin læppu-t-æj fætarstæn
four strong boy-PL-INS become.afraid.of
'I became afraid of the four strong young men.'
- b. syppar **tyxcin** læppu-t-æj fætarstæn
four strong boy-PL-INS become.afraid.of
- c. syppar tyxcin-t-æj fætarstæn
four strong-PL-INS become.afraid.of
'I became afraid of the four strong young (ones).'

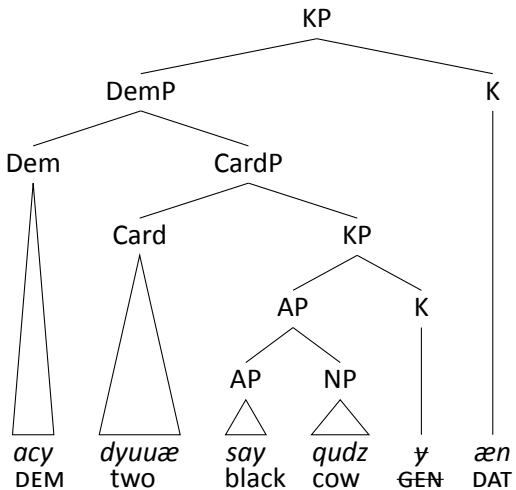
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- (44) acy dyuuæ say qudz-y
 this two black cow-GEN
 'these two black cows' (Erschler to appear)



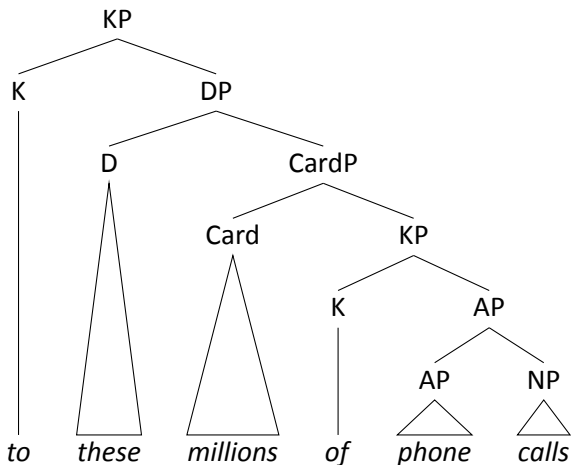
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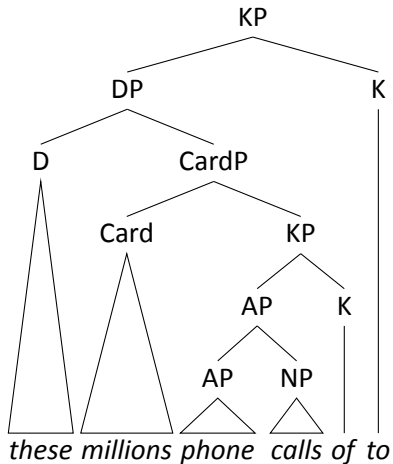
- (47) President Obama and other supporters of this policy have repeatedly reminded the public that the NSA does not have access [*to these millions of phone calls.*]

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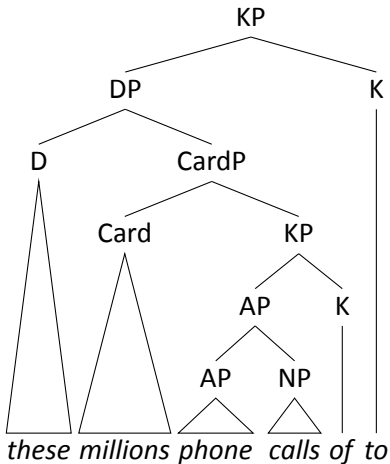
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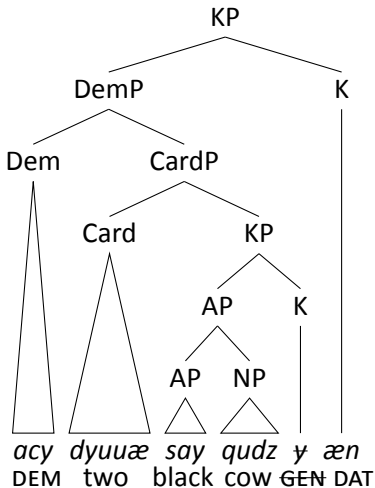
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(49)



(50)



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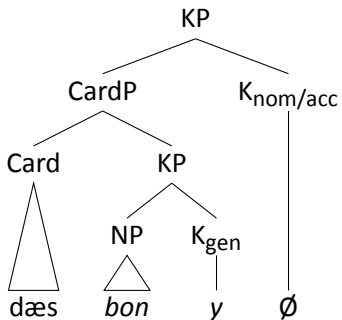
Summing up

A fake syncretism

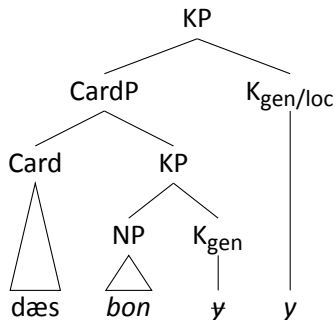
Table: The paradigm of Iron Ossetic numerical phrases

	ten days	day
NOM	dæs bon-y	bon-∅
ACC	dæs bon-y	bon-∅
GEN	dæs bon-y	bon-y
LOC (INE)	dæs bon-y	bon-y
DAT	dæs bon-æn	bon-æn
INS (ABL)	dæs bon-æj	bon-æj
...

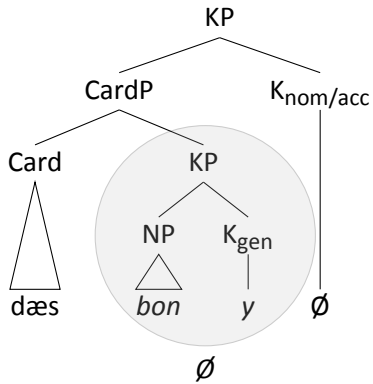
(51)



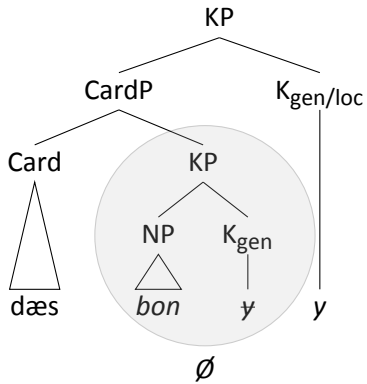
(52)



(53)



(54)



(55) Iron Ossetic (Hettich 2002: 55)

- a. syppar tyxcin læppu-t-æj fætarstæn
four strong boy-PL-INS become.afraid.of
'I became afraid of the four strong young men.'
- b. **syppar** tyxcin læppu-t-**æj** fætarstæn
four strong boy-PL-INS become.afraid.of
- c. syppar-æj fætarstæn
four-INS become.afraid.of
'I became afraid of the four (ones).'

Table: The paradigm of Iron Ossetic numerical phrases II

	ten	ten days
NOM	dæs-∅	dæs bøn-y ∅
ACC	dæs-∅	dæs bøn-y ∅
GEN	dæs-y	dæs bøn-y y
LOC (INE)	dæs-y	dæs bøn-y y
DAT	dæs-æn	dæs bøn-y æn
INS (ABL)	dæs-æj	dæs bøn-y æj
...

Table: Numerals in Digor compared to nouns (Erschler 2018)

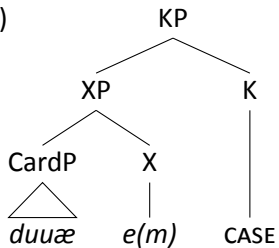
	two	horse
NOM	duuæ-∅	bæx-∅
ACC	duuæ-∅	bæx-i
GEN	duu- ej	bæx-i
LOC (INE)	duu- emi	bæx-i
DAT	duu- emæn	bæx- æn
INS (ABL)	duu- emæj	bæx- æj
ADE	duu- ebæl	bæx- bæl
ALL	duu- emæ	bæx- mæ

Table: Segmented numerals in Digor compared to nouns

	two		horse
NOM	duuæ-	∅	bæx-∅
ACC	duuæ-	∅	bæx-i
GEN	duu-	e -j	bæx-i
LOC (INE)	duu-	em -i	bæx-i
DAT	duu-	em -æn	bæx-æn
INS (ABL)	duu-	em -æj	bæx-æj
ADE	duu-	e -bæl	bæx-bæl
ALL	duu-	e -mæ	bæx-mæ

- (56) *The morphological structure of the oblique numeral:*
 ROOT-e(m)-CASE

(57)



(58)

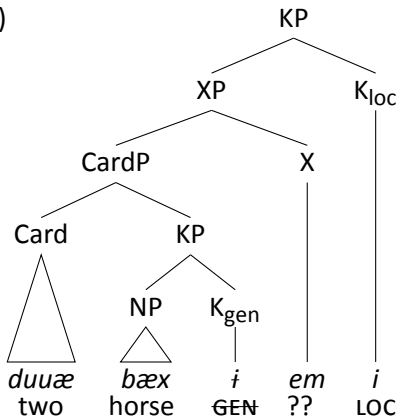


Table: The paradigm of Digor Ossetic numerical phrases (Erschler 2018)

	two horses (Digor)
NOM	duuæ bæx-i
ACC	duuæ bæx-i
GEN	duuæ bæx- e -j
LOC (INE)	duuæ bæx- em -i
DAT	duuæ bæx- em -æn
INS (ABL)	duuæ bæx- em -æj
ADE	duuæ bæx- e -bæl
ALL	duuæ bæx- e -mæ

Ossetic numerals

What kind of deletion?

Deriving the syncretism scale

How deletion works

NP-structure in Ossetic

Supporting evidence

Summing up

(59) a. Two cases are assigned (suspended affixation)

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 - b. The outer case marker elides the inner one (Digor numerical phrases)

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 - c. The two case markers occupy different structural positions (fake ambiguities resolved by ellipsis)

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- a. Two cases are assigned (suspended affixation)
 - b. The outer case marker elides the inner one (Digor numerical phrases)
 - c. The two case markers occupy different structural positions (fake ambiguities resolved by ellipsis)
 - d. Case deletion = ellipsis under c-command and identity (strength scale = syncretism scale)

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