

Displacement after exponence?

Case of Nanai nominal morphology

Daniar Kasenov, HSE University

Workshop on Altaic Formal Linguistics 17, Sep 2023

Funding & acknowledgements

This research is supported by RSF grant № 20-512-26004

Thanks to Alexandra Shikunova, Alexander Sergienko, Karlos Arregi, Petr Rosseyaykin, and Maria Bolotova for the discussion of the presented material

Post-syntax?

Big debate: are post-syntactic operations (e.g., Fission/Fusion) necessary?

Yes, says DM.

No, says a lot of people!

Post-syntax?

Smaller debate: is post-syntactic displacement necessary?

Yes, says [Arregi & Nevins 2012](#), [Hewett 2023](#) (among others)

No, says a lot of people!

Post-syntax?

Even smaller: is post-exponence displacement necessary?

Yes, says Embick & Noyer 2001

No, says a lot of people!

A sidenote

Our focus: displacement triggered by morphosyntax

⇒ Infix placement is irrelevant today

See [Kalin & Rolle 2022](#); [Kalin 2022](#) for recent discussion

This talk

Today, we examine the last question

What data can support post-exponence displacement?

Serial opacity effects

Ordering of two (types of) rules: exponence » displacement

As in any serial model, we expect:

- feeding
- bleeding
- counterfeeding
- counterbleeding

Serial opacity effects

I focus on:

- counterfeeding
- counterbleeding

This talk

What data can support post-exponence displacement?

- non-local* exponence conditioning (counterbleeding)
- lack of local* exponence conditioning (counterfeeding)
- *local on the surface

The plan

- “counterbleeding” in exponence (how to analyze)
- “counterfeeding” in exponence (Nanai)

Non-local conditioning

Cf. Nyakusa spirantization ([Hyman 2003](#))

- (1) a. *sob-* 'get lost'
b. *sof-j* 'get lost-CAUS'
c. *sob-an-j* 'get lost-RECIP-CAUS' (=get each other lost)
d. *sof-an-j* 'get lost-RECIP-CAUS' (=to lose each other)

Local dislocation for non-local conditioning

Nyakusa shows a non-local morpho-phonological process in a non-Mirror order

One solution: post-exponence displacement

Local dislocation for non-local conditioning

A sketch of an analysis

- (2) a. $\text{Verb} \frown \text{Caus} \frown \text{Recip} \Rightarrow \text{Exponence} \Rightarrow$
- b. $[\text{Verb}, \text{sof-}] \frown [\text{Caus}, -j-] \frown [\text{Recip}, -an-] \Rightarrow \text{Displacement} \Rightarrow$
- c. $[\text{Verb}, \text{sof-}] \frown [\text{Recip}, -an-] \frown [\text{Caus}, -j-]$

In a different order, no spirantization would occur

Non-local processes as argument for what?

Post-exponence displacement creates non-local allomorphy

That follows from the 'post-exponence' part

But is it the only analytical choice?

Non-local processes via bottom-up exponence

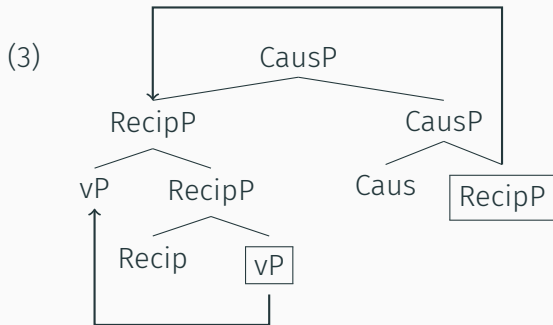
Myler 2017: word-internal phrasal movement

Derives Mirror Principle violations

Derives non-local effects with bottom-up exponence

Myler's analysis of Nyakusa

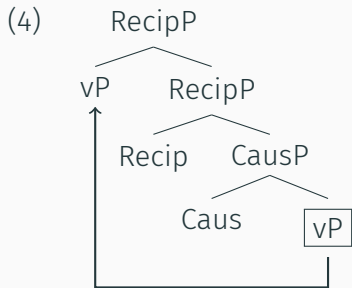
Mirror-complying structure:



Linearized as verb-RECIP-CAUS

Myler's analysis of Nyakusa

Mirror-violating structure:



Linearizes as verb-RECIP-CAUS

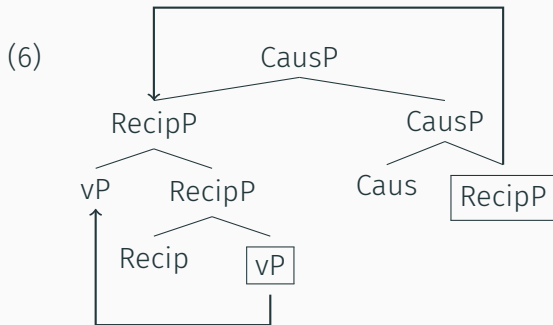
Myler's analysis of Nyakusa

Order of exponence is governed by:

- (5) If a projection of X dominates a projection of Y, Y is exponed earlier than X

Myler's analysis of Nyakusa

Mirror-complying structure:



Order of exponence: verb « RECIP « CAUS

Myler's analysis of Nyakusa

Order of exponence: verb « RECIP « CAUS

(7) a. ϵ

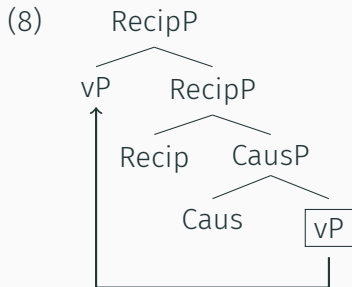
b. *sob-*

c. *sob-+-an-* = *sob-an-*

d. *sob-an-+-j-* = *sob-an-j*

Myler's analysis of Nyakusa

Mirror-violating structure:



Order of exponence: verb « RECIP; CAUS « RECIP

Myler's analysis of Nyakusa

Order of exponence: verb « RECIP; CAUS « RECIP

⇒ there is a derivation point where only verb and CAUS are exponed, allowing non-local interaction

Myler's analysis of Nyakusa

Order of exponence: verb « RECIP; CAUS « RECIP

(9) a. ϵ

b. $sob-+-j- = sof-+-j-$

c. $sof-+-an-+-j- = sof-an-j$

Linear order doesn't correspond to exponence order

An empirical question

Recall the phenomena able to support post-exponence displacement

- non-local exponence conditioning
- lack of local exponence conditioning

Can the second type be re-analyzed Myler-style?

My argument

I present a case of Nanai nominal morphology
which presents lack of bleeding in exponence conditioning
which can't be analyzed Myler-style
⇒ supports post-exponence displacement

On my data: a disclaimer

The data comes from [Oskol'skaya 2015](#) who has done fieldwork on the language and has also compiled claims of previous researchers on Nanai language

Hence, my knowledge of Nanai grammar is incomplete

Core data

POSS	NOM	ACC	ABL
—	<i>ogda</i> boat	<i>ogda-wa</i> boat-ACC	<i>ogda-diadi</i> boat-ABL
1SG	<i>ogda-i</i> boat-1SG	<i>ogda-i-wa</i> boat-1SG-ACC	<i>ogda-diadi-i-wa</i> boat-ABL-1SG-ACC
2SG	<i>ogda-si</i> boat-2SG	<i>bala-wa-si</i> boat-ACC-2SG	<i>ogda-diadi-a-si</i> boat-ABL-ACC-2SG
3SG	<i>ogda-ni</i> boat-3SG	<i>ogda-wa-ni</i> boat-ACC-3SG	<i>ogda-diadi-a-ni</i> boat-ABL-ACC-3SG
1PL	<i>ogda-pu</i> boat-1PL	<i>ogda-po-wa</i> boat-1PL-ACC	<i>ogda-diadi-po-wa</i> boat-ABL-1PL-ACC
2PL	<i>ogda-su</i> boat-2PL	<i>ogda-wa-su</i> boat-OBL-2PL	<i>ogda-diadi-a-su</i> boat-ABL-ACC-2PL
3PL	<i>ogda-ci</i> boat-3PL	<i>ogda-wa-ci</i> boat-ACC-3PL	<i>ogda-diadi-a-ci</i> boat-ABL-ACC-3PL

Problem 1: φ -sensitive morpheme order

POSS	NOM	ACC	ABL
—	<i>ogda</i> boat	<i>ogda-wa</i> boat-ACC	<i>ogda-diadi</i> boat-ABL
1SG	<i>ogda-i</i> boat-1SG	<i>ogda-i-wa</i> boat-1SG-ACC	<i>ogda-diadi-i-wa</i> boat-ABL-1SG-ACC
2SG	<i>ogda-si</i> boat-2SG	<i>bala-wa-si</i> boat-ACC-2SG	<i>ogda-diadi-a-si</i> boat-ABL-ACC-2SG
3SG	<i>ogda-ni</i> boat-3SG	<i>ogda-wa-ni</i> boat-ACC-3SG	<i>ogda-diadi-a-ni</i> boat-ABL-ACC-3SG
1PL	<i>ogda-pu</i> boat-1PL	<i>ogda-po-wa</i> boat-1PL-ACC	<i>ogda-diadi-po-wa</i> boat-ABL-1PL-ACC
2PL	<i>ogda-su</i> boat-2PL	<i>ogda-wa-su</i> boat-OBL-2PL	<i>ogda-diadi-a-su</i> boat-ABL-ACC-2PL
3PL	<i>ogda-ci</i> boat-3PL	<i>ogda-wa-ci</i> boat-ACC-3PL	<i>ogda-diadi-a-ci</i> boat-ABL-ACC-3PL

Problem 2: exponence of ACC in oblique cases with POSS

POSS	NOM	ACC	ABL
—	<i>ogda</i> boat	<i>ogda-wa</i> boat-ACC	<i>ogda-diadi</i> boat-ABL
1SG	<i>ogda-i</i> boat-1SG	<i>ogda-i-wa</i> boat-1SG-ACC	<i>ogda-diadi-i-wa</i> boat-ABL-1SG-ACC
2SG	<i>ogda-si</i> boat-2SG	<i>bala-wa-si</i> boat-ACC-2SG	<i>ogda-diadi-a-si</i> boat-ABL-ACC-2SG
3SG	<i>ogda-ni</i> boat-3SG	<i>ogda-wa-ni</i> boat-ACC-3SG	<i>ogda-diadi-a-ni</i> boat-ABL-ACC-3SG
1PL	<i>ogda-pu</i> boat-1PL	<i>ogda-po-wa</i> boat-1PL-ACC	<i>ogda-diadi-po-wa</i> boat-ABL-1PL-ACC
2PL	<i>ogda-su</i> boat-2PL	<i>ogda-wa-su</i> boat-OBL-2PL	<i>ogda-diadi-a-su</i> boat-ABL-ACC-2PL
3PL	<i>ogda-ci</i> boat-3PL	<i>ogda-wa-ci</i> boat-ACC-3PL	<i>ogda-diadi-a-ci</i> boat-ABL-ACC-3PL

My analytical claims

- ‘Basic’ order is: N-P-Poss-K (the 1P order)
- Order in 2/3P is derived via post-exponence displacement
- Zero-exponence of K is conditioned by linear adjacency to P

My general claim

There is a lack of bleeding of zero-exponence of ACC by displacement

⇒ Nanai is important for the question of necessity of post-exponence displacement

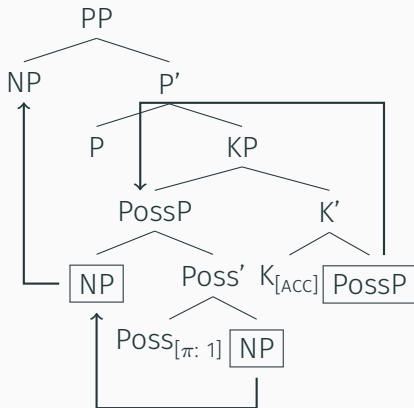
My analytical claims

- ‘Basic’ order is: N-P-Poss-K (the 1P order)
- Order in 2/3P is derived via post-exponence displacement
- Zero-exponence of K is conditioned by linear adjacency to P

Deriving N-P-Poss-K

Cinque-style structure for the 'basic' order

(10)



Linearization: N-P-Poss-K

Allomorphy of ACC

VI rules for ACC

(11) a. $K[ACC] \leftrightarrow \emptyset / P \curvearrowright ___$

b. $K[ACC] \leftrightarrow -(w)a$

Linear intervention of POSS captures the role of POSS in exponence of ACC in oblique cases of possessive paradigm

Exponence of ACC in 2/3.POSS

What about 2/3P with N-P-K-Poss order? Local Dislocation

(12) a. $N \frown P \frown Poss \frown K$

b. $[N, ogda] \frown [P, diadi] \frown [Poss, -ni] \frown [K, -a]$

c. $[N, ogda] \frown [P, diadi] \frown [[K, -a] + [Poss, -ni]]$

For purposes of allomorphy, the order is N-P-Poss-K

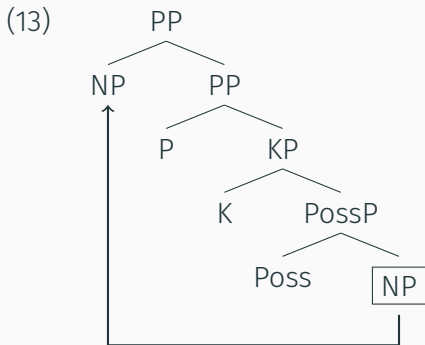
Is a displacement « exponence approach viable?

if the N-P-K-Poss order is determined before exponence:

- linear intervention approaches are out
- structural intervention approaches are out
- are exponence order approaches (Myler 2017) are out?

Can we account for Nanai when displacement « exponence?

Linear order suggest the following structure for 2/3P



Is a Myler-style approach viable?

No partial ordering of exponence of P, K, and Poss

Hence, no non-local effects expected

Is a displacement « exponence approach viable?

if the N-P-K-Poss order is determined before exponence:

- linear intervention approaches are out
- structural intervention approaches are out
- exponence order approaches (Myler 2017) are out

Summing up

- A case of exponence » displacement counterfeeding
- Easily explained by post-exponence displacement
- Pre-exponence displacement doesn't account for that
- Existing order-of-exponence approaches seem inapplicable

References i

- Arregi, Karlos & Andrew Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. Vol. 86. Springer Science & Business Media.
- Embick, David & Rolf Noyer. 2001. Movement operations after syntax. *Linguistic inquiry* 32(4). 555–595.
- Hewett, Matthew. 2023. Allomorphy in Semitic discontinuous agreement: Evidence for a modular approach to postsyntax. *Natural Language & Linguistic Theory* 41(3). 1091–1145.
- Hyman, Larry M. 2003. Suffix ordering in bantu: A morphocentric approach. In *Yearbook of morphology 2002*, 245–281. Springer.
- Kalin, Laura. 2022. Infixes really are (underlyingly) prefixes/suffixes: Evidence from allomorphy on the fine timing of infixation. *Language* 98(4). 641–682.

References ii

- Kalin, Laura & Nicholas Rolle. 2022. Deconstructing Subcategorization: Conditions on Insertion vs. Conditions on Position. *Linguistic Inquiry*. 1–21.
- Myler, Neil. 2017. Exceptions to the mirror principle and morphophonological “action at a distance”: the role of “word”-internal phrasal movement and spell out. In *The structure of words at the interfaces*, 100–125. Oxford University Press Oxford.
- Oskol'skaya, Sonia. 2015. Pokazatel' kosvennyx padezhej v nanaiskom yazyke (Oblique case marker in Nanai). *Acta Linguistica Petropolitana* 11(2). 379–397.