Avoiding *ABA phonologically: case of Terek Kumyk plural affix

Daniar Kasenov (HSE University)

Atelier de phonologie, Nov 2023

Acknowledgements

This is ongoing work with Alexandra Shikunova (HSE)

For fruitful discussion, I thank

- Karlos Arregi
- Pavel Graščenkov
- Alexander Podobryaev
- Sergei Tatevosov
- Maksim Melenčenko

The big picture

A classic distinction: phonologically-condiitoned vs. morphosyntacticlly-conditioned allomorphy

Morphosyntactic conditioning:

- English verbs: $\sqrt{\text{GOOD}}$ realized as *went* in past tense
- English nominalizations: *refus-**al*** vs. *destruc-**tion***

The big picture

A classic distinction: phonologically-conditioned vs. morphosyntacticlly-conditioned allomorphy

Phonological conditioning:

- Martuthunira genitive:
  -ku after nasals, *-yu* after laterals and rhotics
- Korean nominative:
  -i after Cs, *-ka* after Vs

The big picture

A classic distinction: phonologically-conditioned vs. morphosyntacticlly-conditioned allomorphy

This talk: a phonological analysis of an apparently morphosyntactically-conditioned allomorph distribution

Why?

- to avoid violation of the *ABA generalization (Bobaljik 2012)
- in line with the research programme stated by Newell & Ulfsbjorninn (2021)

On the language

The data comes from Terek Kumyk (< Kipchak < Turkic)

As far as I can tell from the existing studies, others dialects of Kumyk (e.g., literary Kumyk) behave the same

To be sure, however, I limit myself to discussion of my own field data gathered in Predgornoye village in August 2022 and 2023

Main data

The point of interest: distribution of plural *-la-* vs. *-lar-* across nominal cases

NOM	ACC	GEN
ata-lar	*ata-la-nɨ*	*ata-la-nɨ*
father-PL	father-PL-ACC	father-PL-GEN

DAT	LOC	ABL
ata-la-ʁa	*ata-lar-da*	*ata-lar-dan*
father-PL-DAT	father-PL-LOC	father-PL-ABL

Main data

The point of interest: distribution of plural -*la*- vs. -*lar*- across nominal cases

NOM	ACC	GEN
ata-lar	*ata-la-nɨ*	*ata-la-nɨ*
father-PL	father-PL-ACC	father-PL-GEN

DAT	LOC	ABL
ata-la-ʁa	*ata-lar-da*	*ata-lar-dan*
father-PL-DAT	father-PL-LOC	father-PL-ABL

Main data

The point of interest: distribution of plural *-la-* vs. *-lar-* across nominal cases

NOM	ACC	GEN
ata-lar	*ata-la-nɨ*	*ata-la-nɨ*
father-PL	father-PL-ACC	father-PL-GEN

DAT	LOC	ABL
ata-la-ʁa	*ata-lar-da*	*ata-lar-dan*
father-PL-DAT	father-PL-LOC	father-PL-ABL

Main data

The morphosyntactic generalization:

- allomorph -*la*- is found in accusative, genitive, and dative
- allomorph -*lar*- is found elsewhere

Now, I defend this way of generalizing the data

Main data: not a cluster ban

Not a wholesale cluster ban

NOM	ACC	GEN
or	*or-nu*	*or-nu*
top	top-ACC	top-GEN

DAT	LOC	ABL
or-ʁa	*or-da*	*or-dan*
top-DAT	top-LOC	top-ABL

Main data: not a cluster ban

Not a cluster ban on the stem-affix line

NOM	ACC	GEN
bar–ɨr	*bar–ɨr-nɨ*	*bar–ɨr-nɨ*
come-FUT.NMLZ	come-FUT.NMLZ-ACC	come-FUT.NMLZ-GEN
DAT	**LOC**	**ABL**
bar–ɨr-ʁa	*bar–ɨr-da*	*bar–ɨr-dan*
come-FUT.NMLZ-DAT	come-FUT.NMLZ-LOC	come-FUT.NMLZ-ABL

But: there are no truly inflectional affixes are *r*-final except PL

The morphosyntactic generalization:

- allomorph *-la-* is found in accusative, genitive, and dative
- allomorph *-lar-* is found elsewhere

A phonological analysis seems untenable.

But the generalization is problematic morphosyntactically

*ABA and case hierarchy

A case hierarchy:

- NOM « ACC « DAT « …
- governs various case-sensitive morphological phenomena
- e.g., suppletion

An example

	NOM	ACC	DAT	
1SG	*men*	*men-i*	*men-ge*	
2SG	*sen*	*teb-i*	*sen-ge*	← impossible suppletion

*ABA and case hierarchy

A case hierarchy (Blake 2001; Caha 2009, et seq.):

- NOM « ACC « DAT « ...
- governs various case-sensitive morphological phenomena
- e.g., syncretism

An example

	NOM	ACC	DAT	
2SG	*sen-*$\boxed{ge}$	*sen-i*	*sen-*$\boxed{ge}$	← impossible syncretism

*ABA and case hierarchy

A case hierarchy (Blake 2001; Caha 2009, et seq.):

- NOM « ACC « DAT « …
- governs various case-sensitive morphological phenomena
- e.g., overt containment

An example

	NOM	ACC	DAT	
2SG	*sen-*$\boxed{\textit{ge-n}}$	*sen-i*	*sen-*$\boxed{\textit{ge}}$	← impossible containment

*ABA and case hierarchy

Partial case hierarchy:

- NOM « {ACC, GEN, DAT} « {LOC, ABL}
- commonly understood via cumulative feature decomposition or containment of K heads (Caha 2009)
- NOM = [A], ACC = [A, B], etc.

Any pattern violating the hierarchy violates the *ABA restriction (Bobaljik 2012; Bobaljik & Sauerland 2018)

Our generalization violates *ABA

Our description of the data violates *ABA, given the partial case hierarchy NOM « {ACC, GEN, DAT} « {LOC, ABL}

Possible workarounds:

- get rid of the partial case hierarchy
- re-state the morphosyntactic generalization
- derive the generalization outside of Vocabulary Insertion

We will pursue the third road, but let's discuss the first two

Idea 1: deny that locative/ablative are cases

Denying the case hierarchy wholesale seems non-productive, given the evidence for it

However, we can deny that locatives of different sort are cases (cf. Matushansky 2021)

The analysis:

- adpositions select for nominative DPs
- *-la-* is inserted in oblique cases
- *-lar-* is inserted elsewhere

Idea 1: deny that locative/ablative are cases

The analysis: adpositions select for nominative DPs

There is language-internal evidence against that

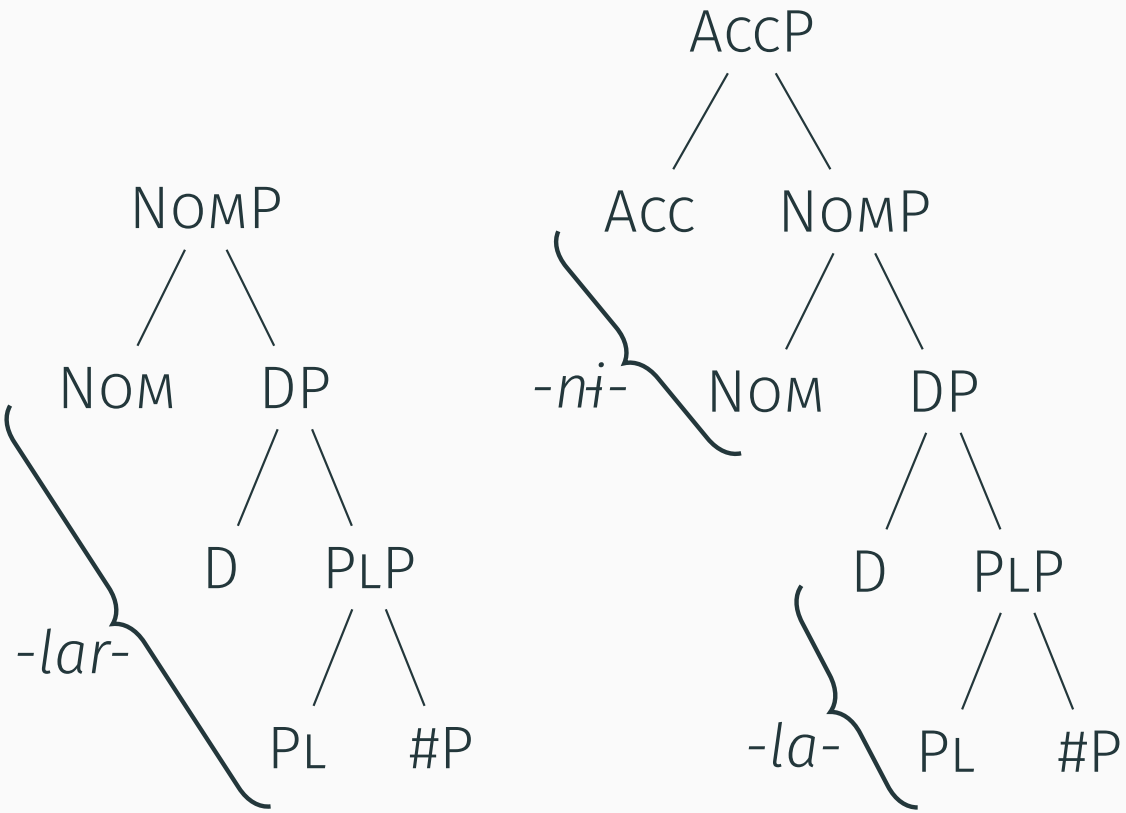
NOM	ACC	GEN
ata-si	*ata-si-n*	*ata-si-ni*
father-3	father-3-ACC	father-3-GEN

DAT	LOC	ABL
ata-si-n-a	*ata-si-n-da*	*ata-si-n-dan*
father-3-ACC-DAT	father-3-ACC-LOC	father-3-ABL

Based on similar data from Balkar, Davis 2023 argues that locatives contain (at least) accusative

Idea 2: re-state the morphosyntactic generalization

The analysis: *-lar-* and *-la-* realize different parts of the nominal structure (see Middleton 2021; Davis 2021 on the link between portmanteux and pseudo-ABA)



Idea 2: re-state the morphosyntactic generalization

The analysis: *-lar-* and *-la-* realize different parts of the nominal structure

Untenable, given the behavior in possessives

	1POSS	2POSS	3POSS
SG	*ata-m*	*ata-ŋ*	*ata-sɨ*
	father-1	father-2	father-3
PL	*ata-lar-ɨm*	*ata-lar-ɨŋ*	*ata-lar-ɨ*
	father-PL-1	father-PL-2	father-PL-3

Idea 2: re-state the morphosyntactic generalization

The analysis: *-lar-* and *-la-* realize different parts of the nominal structure

Untenable, given the behavior in possessives

Should *-lar-* require, say, NOM (or D, or whatever), its emergence in possessives is unexpected

Idea 3: derive the generalizations without Vocabulary Insertion

The problem was: the Vocabulary Insertion rules that encode our generalization violate what we know about case morphology

The idea: derive the generalization using something else

What could we use?

Idea 3: derive the generalizations without Vocabulary Insertion

We need:

- {NOM, LOC, ABL} to form a natural class
- in exclusion of {ACC, GEN, DAT}

Our proposal: the natural class comes from underlying phonological representations of the affixes

Framework of choice: strict CV

Our analysis will be:

- strictly modular: no puzzle-specific diacritics
- based on autosegmental representations
- utilizing the notion of floating segments

A framework for that: strict CV (Scheer 2004; Newell & Ulfsbjorninn 2021)

Core parts of the analysis

Our analysis makes the following claims:

- segment *-r* in *-la(r)-* is floating (=not associated to a C-slot)
- first segments of ACC, GEN, DAT are floating
- first segments of LOC, ABL are not floating

Two types of floating segments in strict CV

We understand **floating segment** as a segment which is not associated to a syllabic slot

However, this notion underspecifies the syllabic space for the segment in the representation

a. Additional syllabic space

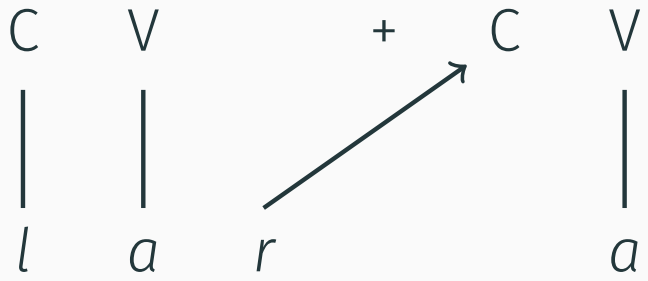
b. No additional syllabic space

Two types of floating segments in strict CV

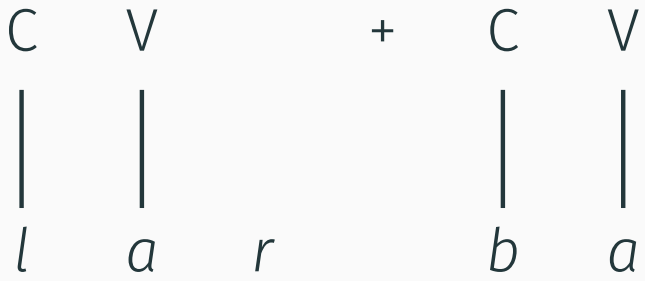
We understand **floating segment** as a segment which is not associated to a syllabic slot

Without additional syllabic space, the pronunciation of the floating segment is conditioned by the next segment

a. V-initial



b. C-initial

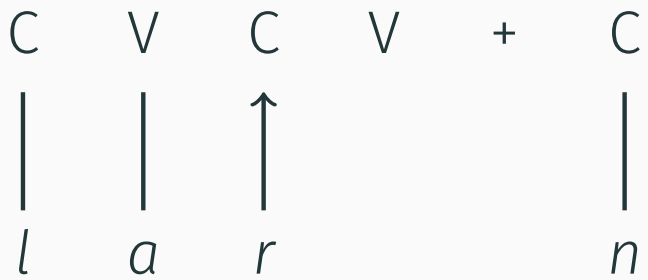


Two types of floating segments in strict CV

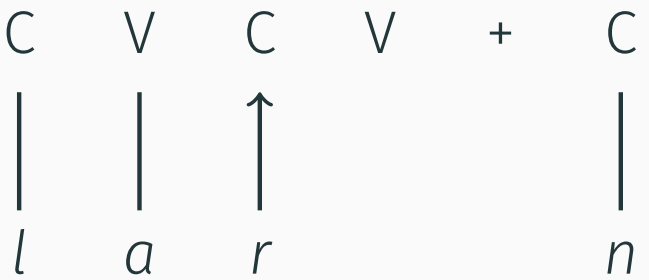
We understand **floating segment** as a segment which is not associated to a syllabic slot

With additional syllabic space, the pronunciation determines on the order of association of melodies if there is more than one floating melody

a. Left-to-right (i)



b. Right-to-left (i)

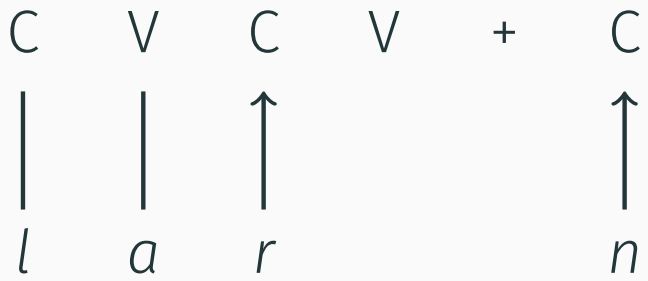


Two types of floating segments in strict CV

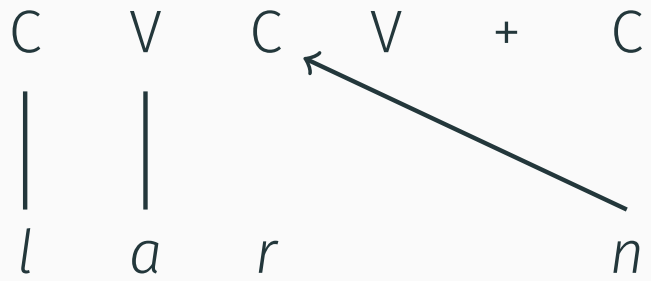
We understand **floating segment** as a segment which is not associated to a syllabic slot

With additional syllabic space, the pronunciation determines on the order of association of melodies

a. Left-to-right (ii)



b. Right-to-left (ii)



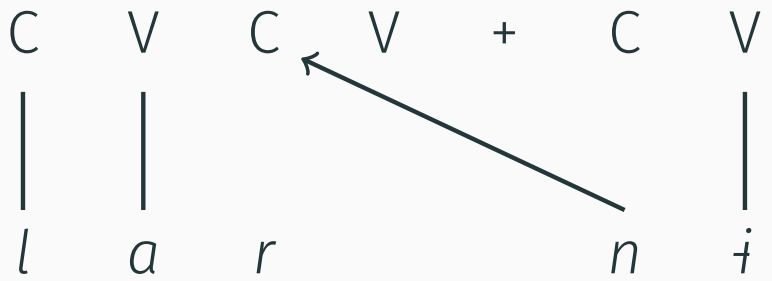
Our analysis

Basically, that is our analysis:

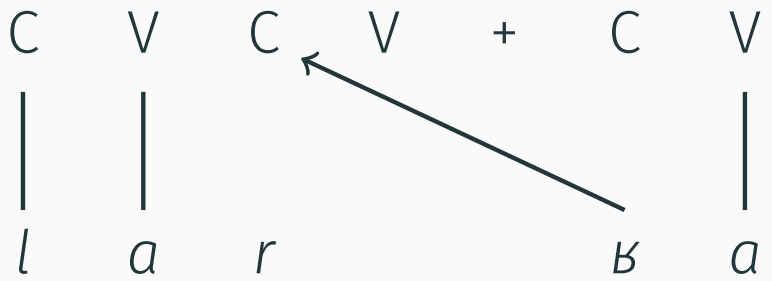
- Terek Kumyk association is right-to-left for melodies and left-to-right for syllabic slots
- PL ends with a floating segment
- ACC, GEN, DAT start with floating segments
- LOC, ABL don't

Deriving NOM.PL

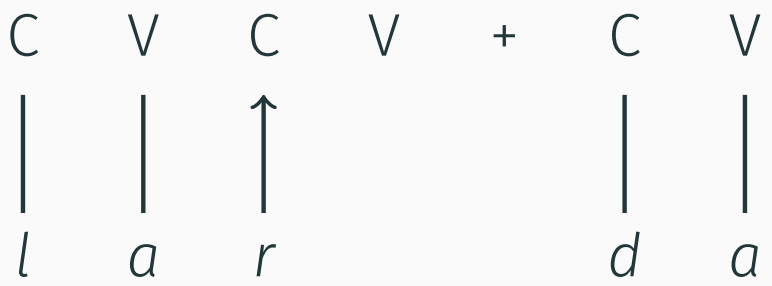
Deriving ACC.PL



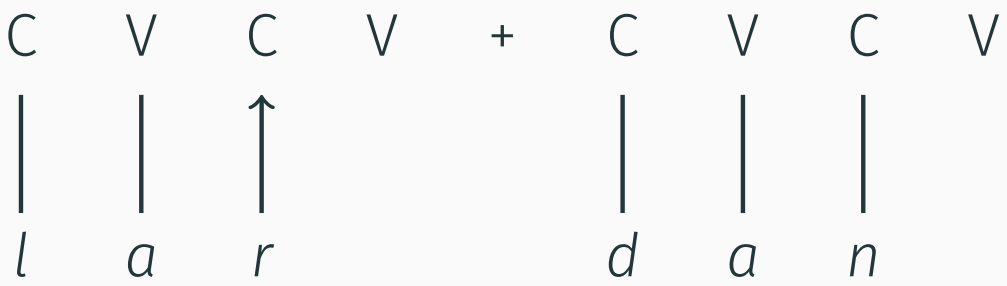
Deriving DAT.PL



Deriving LOC.PL



Deriving ABL.PL



On additional evidence

Our analysis rests on three stipulations:

- Terek Kumyk association is right-to-left for melodies and left-to-right for syllabic slots
- PL ends with a floating segment
- ACC, GEN, DAT start with floating segments

Is there independent evidence for each one?

On additional evidence: right-to-left association

No meta-studies on the possible orders of association in CVCV

However, previous studies have employed:

- left-to-right on both levels (Ulfsbjorninn 2022)
- right-to-left on both levels (Enguehard & Faust 2018)
- right-to-left on CV, left-to-right on melodies (Newell 2023)

Ours seems to fill the gap by positing left-to-right on CV, right-to-left on melodies

On additional evidence: PL affix

Turkish: a non-alternating PL affix *-lar-*

NOM	ACC	DAT
adam-lar	*adam-lar-i*	*adam-lar-a*
man-PL	man-PL-ACC	man-PL-DAT

On additional evidence: PL affix

Balkar: a phonologically-conditioned PL affix *-la(r)-* (cf. Dudčuk 2002)

NOM	ACC	GEN
bala-la	*bala-la-nɨ*	*bala-la-nɨ*
child-PL	child-PL-ACC	child-PL-GEN

DAT	LOC	ABL
bala-la-ʁa	*bala-la-da*	*bala-la-dan*
child-PL-DAT	child-PL-LOC	child-PL-ABL

On additional evidence: PL affix

Balkar: a phonologically-conditioned PL affix *-la(r)-* (cf. Dudčuk 2002)

	1POSS	2POSS	3POSS
SG	*bala-m*	*bala-ŋ*	*bala-sɨ*
	child-1	child-2	child-3
PL	*bala-lar-ɨm*	*bala-lar-ɨŋ*	*bala-lar-ɨ*
	child-PL-1	child-PL-2	child-PL-3

Note: a non-ideal argument (due to the unclear status of the vowel in 1/2POSS)

On additional evidence: PL affix

Turkish and Balkar: Terek Kumyk is the ‘middleman’ — syllabic space is there but -*r*- lost association

On additional evidence: ACC, GEN, DAT affixes

Circumstantial evidence for initial segments of ACC, GEN, DAT being floating comes from an optional deletion in V_V contexts which is not found with locative

- *ata-nʲi* > *ata-ʲi* > *ata:*
- *ata-ʁa* > *ata-a* > *ata:*
- **ata-da* > *ata-a* > *ata:*

But it is an understudied phenomenon (for example, the influence of vowel harmony is yet unclear) — we abstain from making strong claims

An alternative analysis

Circumstantial evidence for initial segments of ACC, GEN, DAT being floating comes from an optional deletion in V_V contexts which is not found with locative

- *ata-nI* > *ata-I* > *ata:*
- *ata-ga* > *ata-a* > *ata:*
- **ata-da* > *ata-a* > *ata:*

But it is an understudied phenomenon (for example, the influence of vowel harmony is yet unclear) — we abstain from making strong claims

Conclusion

Main claims:

- Terek Kumyk PL affix violates *ABA generalization on the surface
- A phonological analysis circumvents the problem
- Core idea: floating segments + right-to-left association
- The morphosyntactically unnatural class of {ACC,DAT,GEN} is united by common features of the underlying phonological representations

References i

Blake, Barry J. 2001. *Case*. Cambridge University Press.

Bobaljik, Jonathan David. 2012. *Universals in comparative morphology: Suppletion, superlatives, and the structure of words*. MIT Press.

Bobaljik, Jonathan David & Uli Sauerland. 2018. ABA and the combinatorics of morphological features. *Glossa: a journal of general linguistics* 3(1).

Caha, Pavel. 2009. *The nanosyntax of case*. Universitetet i Tromsø dissertation.

Davis, Colin. 2021. Case-sensitive plural suppletion in Barguzin Buryat: On case containment, suppletion typology, and competition in morphology. *Glossa: a journal of general linguistics* 6(1). 1–26.

References ii

Davis, Colin. 2023. The Morphology of Case and Possession in Balkar: Evidence that Oblique Cases Contain Accusative. *Languages* 8(1). 50.

Dudčuk, Phillip. 2002. *Nominal morphology of Balkar*. unpublished ms. of a field report.

Enguehard, Guillaume & Noam Faust. 2018. Guttural ghosts in modern hebrew. *Linguistic Inquiry* 49(4). 685–721.

Matushansky, Ora. 2021. Locatives are not cases: Evidence from Lak. *Typology of Morphosyntactic Parameters*.

Middleton, Jane. 2021. Pseudo-ABA patterns in pronominal morphology. *Morphology* 31(4). 329–354.

Newell, Heather. 2023. Tamil pronominal alternations are phonology not allomorphy. `https://ling.auf.net/lingbuzz/007634`.

References iii

Newell, Heather & Shanti Ulfsbjorninn. 2021. *Phonological solutions to morphological problems*.

Scheer, Tobias. 2004. *A lateral theory of phonology: What is CVCV and why should it be?* de Gruyter.

Ulfsbjorninn, Shanti. 2022. Towards Eradicating Class Driven Allomorphy: Nominal Suffixes in Afar. `https://ling.auf.net/lingbuzz/003533`.