Pseudo-ABA, non-local allomorphy, and word-internal movement

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1 Introduction

- Recent DM-related work on morphosyntactic condition of allomorphy has been led by the following idea (see Embick 2024 for an overview of locality in allomorphy and allosemy)

  (1) *Locality of allomorphy*
  For the node X to influence the exponence of the node Y, X and Y have to stand in a **local relation**

- Main two hypotheses: structural locality (essentially, sisterhood; Bobaljik 2012; Bobaljik 2015) and linear adjacency (Embick 2010)

- That line of work is concerned (among other things) with intervention phenomena

  (2) Some (structural) intervention phenomena

  a. Khakas 3rd person pronouns (Moskal & Smith 2016): case-conditioned stem allomorphy cannot occur in presence of overt PL affix

	SG	PL
NOM	*ol*	*o-lar*
ACC	*a*-*ni*	*o*-*lar-ni*

  b. Laz verbal suppletion ('say') (Demirok 2021): applicative prefix bleeds suppletion in past tense

PTCP	PST.3SG	APPL.3SG-VERB-PST.3SG
zit'-eri	*t'k'-u*	*u-zit'-u* / **u-t'k'-u*

  c. And others (Embick 2010; Moskal & Smith 2016; Paparounas 2024 i.a.)

- Not unrelated notion: *ABA generalization

  (3) **ABA* generalization
  Morphological patterns in which, given some arrangement of the relevant forms in a structured sequence, the first and third may share some property "A" only if the middle member shares that property as well. If the middle member is distinct from the first, then the third member of the sequence must also be distinct. (Bobaljik & Sauerland 2018)

- Bobaljik (2012): no language has an adj. degree paradigm of *good*/*bett-er*/*good-est* type

  (4) An *ABA-violation

POS	CMPR	SPRL
good	*bett-er*	*good-est*
A	B-CMPR	A-SPRL

- *ABA has been invoked as a motivation for the structural locality and containment structures (Bobaljik 2012). See, however, Caha (2017) and Bobaljik & Sauerland (2018) for some alternative analytical options for *ABA generalizations.
- However: recent literature has established that

A. non-local contextual allomorphy exists

B. *ABA-violating paradigms are attested

(5) Some non-local allomorphy cases

a. Tamil first person pronouns (Moskal & Smith 2016)

	SG	PL
NOM	*naan*	*naan-ga*
DAT	*en*-*akku*	*en*-*gal-ukku*

b. Aqush Dargwa TAM-sensitive root allomorphy (Ganenkov 2020)

	AGR-ROOT-CAUS-AOR	AGR-ROOT-CAUS-PST.HAB
do	*bar-ar-aq-ib*	*b-ir-aq-i*
leave	*b-at-aq-ur*	*b-alt-aq-i*
steal	*b-iʔ-aq-un*	*b-ilʔ-aq-i*

(6) Some A-B-Ax paradigms ("pseudo-ABA", Middleton 2021; "base ABA", Caha 2024b)

a. Armenian 'many' (Bobaljik 2012)

POS	CMPR	SPRL
šat	*aveli*	*amena-šat*
many	more	most
A	B	x-A

b. Khakas demonstratives (Caha 2024b)

	this.SG	
NOM	*pu*	A
ACC	*mini*	B
DAT	*pu-ɣa*	A+x

- As usual, such counterexamples have led researchers to relax the locality conditions (see Moskal & Smith 2016) or case-by-case reanalysis (for Tamil, see Caha 2024a and Newell 2023 — Caha argues that there are two plural affixes in play, Newell presents an autosegmental analysis that relies on non-obvious demarcation of phonological cycles; for Armeinan ABAx case, Bobaljik posits removal of CMPR node from the local domain)
- This talk: these observations pose no problem to locality at all, but only given very specific statements about the organization of grammar

(7) Main claim of this talk

a. Premise 1: complex words (M-words) are not (always) complex heads (*contra* Embick 2015) ⇒ word-internal phrasal movement is possible (Julien 2002; Koopman 2005; Myler 2017; Zyman & Kalivoda 2020)

b. Premise 2: multidominance (McCawley 1982; Starke 2001)

c. Premise 3: contextual allomorphy requires sisterhood (Bobaljik 2012)

d. Premise 4: portmanteau formation (sometimes) requires asymmetric c-command (Starke 2009; Baunaz & Lander 2018; Svenonius 2016) — note however that they do not formulate it this way

e. From 1–4: pseudo-ABA and non-local allomorphy phenomena can be generated

- The main theoretical observation that this talk builds upon is that multidominant movement creates sisterhood relations (and thus, feeds contextual allomorphy) but destroys asymmetric c-command relations (and thus, bleeds portmanteau formation)

2 Word-internal phrasal movement

- Embick (2015) (summarizing much previous work): notion of morphological word (M-word)

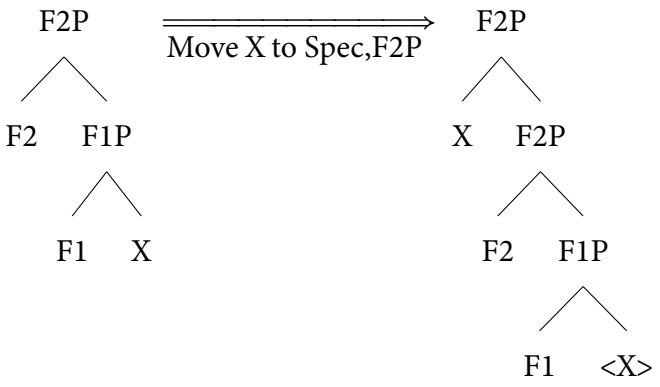
(8) *M-word*
(Potentially complex) head not dominated by a further head-projection.
(Embick 2015: p.68)

- Usually thought to be composed via head movement (though see Bruening 2017 for a critique)
- However, some works have argued that morphological words do not necessarily correspond to (complex) heads ((Julien 2002; Buell 2005; Koopman 2005; Myler 2017; Zyman & Kalivoda 2020)

(9) *Alexist / squishing view of syntax-morphology interface* (quote by Zyman & Kalivoda)
There is no syntactic correlate of (morpho)phonological wordhood; hence, there are no syntactic words. Instead, phonological words are autonomously assembled by the prosody from syntactic terminals, on the basis of phonological properties of the exponents of those terminals [...] A consequence of this view is that **phonological words can be assembled from collections of morphemes that are linearly adjacent but suspended across large regions of syntactic space**—and, in fact, phonological words need not always correspond to syntactic constituents

- This line of work argues for a word-internal movement derivation of Mirror Principle-violating orders

(10) Derivation of X-F2-F1 surface order (given F2 > F1 > X f-seq)

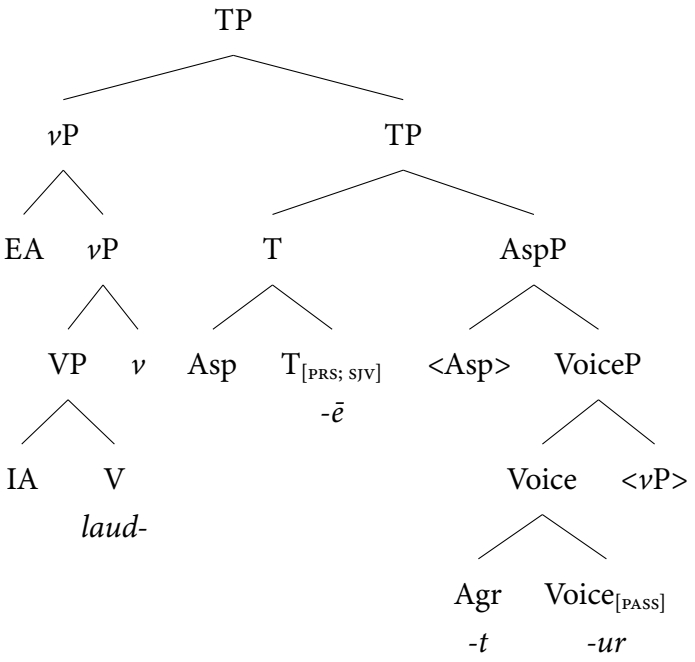


- See Zyman & Kalivoda (2020) for such a derivation for word-final exponence of passives in Latin

(11) a. *laud-ē-t* 'praise-PRS.SBJV-3SG' → *laud-ē-t-ur* 'praise-PRS.SBJV-3SG-PASS'

b. *laud-ē-m* 'praise-PRS.SBJV-1PL' → *laud-ē-m-ur* 'praise-PRS.SBJV-1PL-PASS'

c.

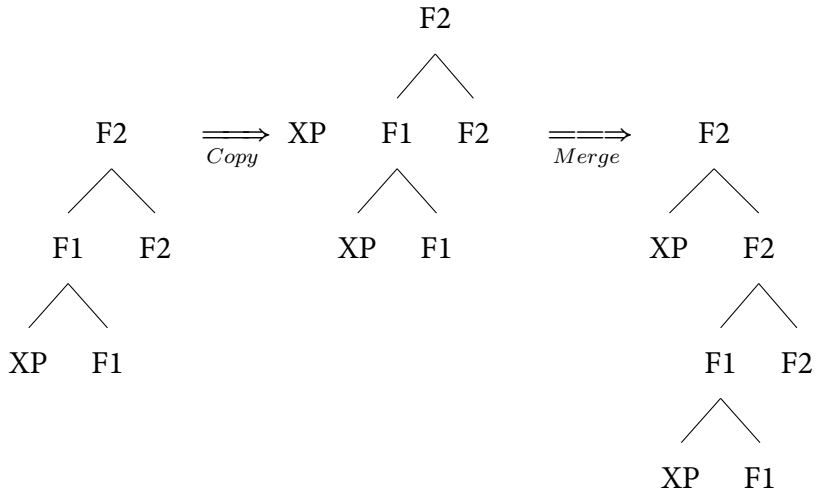


- Analysis that Zyman and Kalivoda present is supported by a battery of syntax-internal supporting evidence (which is not always the case when people employ word-internal phrasal movement)
- I will proceed assuming that word-internal movement is possible

3 Multidominance

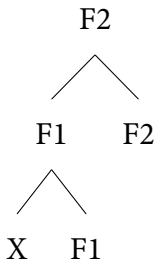
- Copy theory of movement: movement is Copy + Merge (Chomsky 1995; Nunes 1995; a.m.m.o)

(12)

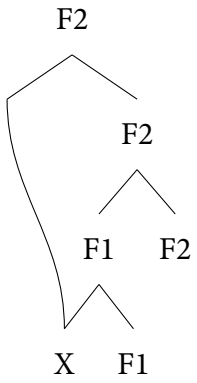


- Some criticism: additional operation of copying, copy resolution issues, etc.
- An alternative: multidominance (movement is just Merge; McCawley 1982; Starke 2001; a.m.m.o.)

(13) Before move



(14) After move



(15) a. Sisterhood relations before move: ⟨X,F1⟩, ⟨F1,F2⟩
b. Sisterhood relations after move: ⟨X,F1⟩, ⟨F1,F2⟩, ⟨X,F2⟩
c. Immediate asymmetric c-command before move: ⟨X,F1⟩, ⟨F1,F2⟩
d. Immediate asymmetric c-command after move: ⟨F1,F2⟩

- Note: it appears that I need a definition of c-command in the spirit of **Kayne:1994** (in order for the complement not to c-command the head)

(16) I am yet to provide a proper def. but I hope my point is clear

- Prediction: movement bleeds phenomena sensitive to immediate asymmetric c-command and feeds phenomena sensitive to sisterhood

4 Conditions on allomorphy and portmanteau formation

- The distinction: contextual allomorphy vs. portmanteau

  (17) a. Allomorphy: *good* → *bett-er*

  b. Portmanteau: *bad* → *worse*

- Note: portmanteau is analyzable as a combination of two contextual allomorphy cases

  (18) a. CMPR ↔ ∅ / $\sqrt{\text{BAD}}$] __

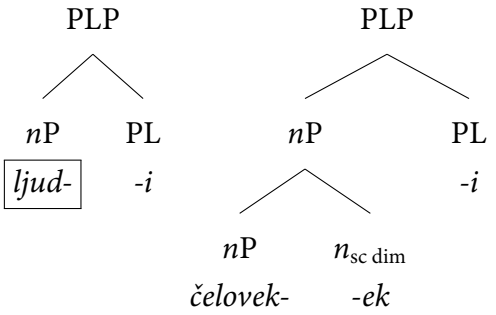
  b. $\sqrt{\text{BAD}}$ ↔ /*worse*/ / __] CMPR

- However, there are reasons to think that not all portmanteau cases are to be analyzed this way
  - It is harder to do two-directional contextual allomorphy with >2 nodes
  - Zero-based analyses sometimes miss generalizations (cf. Caha 2018)
  - Banerjee (2021): portmanteau formation does not uniformly interact with ellipsis, suggesting that two distinct mechanisms are at play
- A prominent proposal for portmanteau formation: non-terminal insertion (spans / phrasal spellout), see Svenonius (2012), Svenonius (2020), Starke (2009); Baunaz & Lander (2018); ...
- Both phenomena are thought to be sensitive to locality, based on intervention phenomena

  (19) Allomorphy intervention (see intro. as well)

  a. Russian
  čelovek 'person' → *ljud-i* 'person.PL-PL'
  človeč-ek 'person-DIM' → *človeč-k-i* 'person-DIM-PL'

  b. Structure without and with DIM

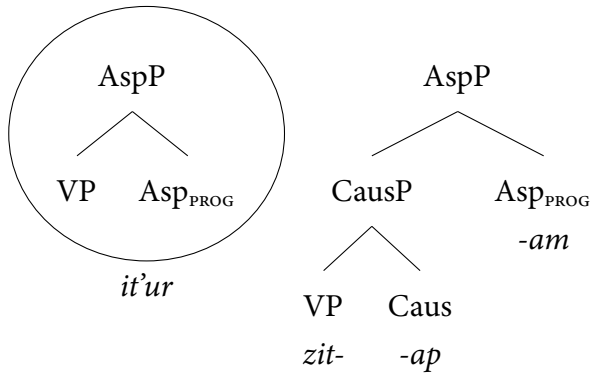


  (20) Portmanteau intervention in Laz (Demirok 2021)

  a. *it'ur* *-an*
  say.PFV -PRS.3PL
  'They are saying it.'

b. *o-* *zit'* *-ap* *-am* *-an*
CAUS say -CAUS -PROG -PRS.3PL
'They are saying it.'

c. Structure without and with causative



- Two distinct problems for locality
  - Non-local allomorphy: non-local interaction
  - Pseudo-ABA phenomena: lack of local interaction

(21) Abstractly represented

	XP	F1 [XP	F2 [F1 [XP
Non-local allomorphy	A1	A1-B	A2-B-C
Pseudo-ABA	A	B	A-C

- I think that it possible to unify them

5 The core argument

- Let's go back to the Khakas-Tamil 'minimal pair'

(22) a. Tamil first person pronoun

	SG	PL
NOM	*naan*	*naan-ga*
DAT	*en-akku*	*en-gal-ukku*

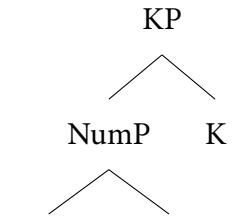
b. Khakas third person pronoun

	SG	PL
NOM	*ol*	*o-lar*
ACC	*a-ni*	*o-lar-ni*

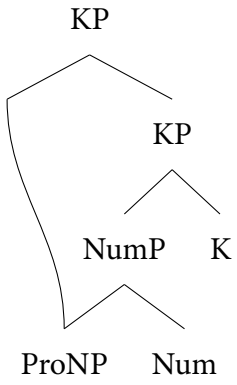
- Khakas: intervention (lack of non-local action). Tamil: lack of intervention (non-local action)
- The issue: how to provide a principled account for intervention phenomena while not ruling out Tamil-type cases?

- Assuming the Abels-Neeleman model for ordering inside the nominal phrase (Abels & Neeleman 2012), the Pron<Num<K order is structurally ambiguous
- Two structures behind Pron<Num<K

(23) Khakas



(24) Tamil



- One of those structures makes ProN a sister to K, allowing contextual allomorphy
- Note:
  - Unlike some other proposals for word-internal movement, the morpheme order in both cases is not mirror-violating (essentially, string-vacuous).
  - An open question: suppose that both NUM and K trigger some sort of stem allomorphy on the pronoun (do you know such cases without portmanteau?). It is unclear to me what I predict assuming a movement step— but probably the option (a) given the bottom-up insertion (Bobaljik 2000)

(25) Two options

a. Number-conditioned allomorph is inserted

	SG	PL
NOM	A	B-pl
ACC	C-acc	B-pl-acc

b. Case-conditioned allomorph is inserted

	SG	PL
NOM	A	B-pl
ACC	C-acc	C-pl-acc

- Now, consider a similar pair but with portmanteau configurations (ABB and pseudo-ABA)

(26) a. Russian zero-comparatives

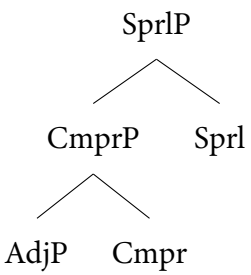
POS	CMPR	SPRL
krut-oj	*kruč-e*	*krut-ej-š-ij*
cool-AGR	cool.CMPR-AGR	cool-CMPR-SPRL-AGR
A	B (or A?)	A-x-y

b. English adjective *worst* (which i assume to contain *-st* superlative affix)

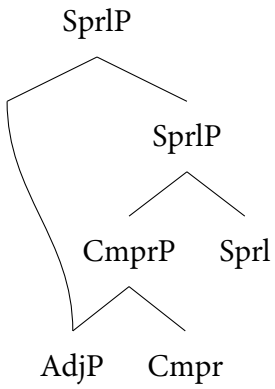
POS	CMPR	SPRL
bad	*worse*	*wors-st*
A	B	B-x

- It follows (with the caveat that I apparently need a non-traditional def. of non-terminal insertion which I do not yet possess)

(27) English



(28) Russian

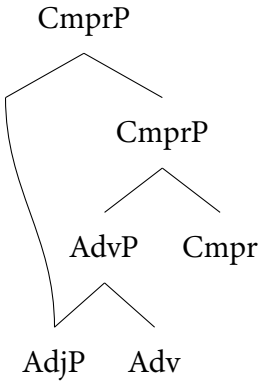


- Recall that I took the weak position that only some portmanteau cases are not two VI rules in a trench coat: there are cases for which this matters

(29) Basque comparative adverbials (Bobaljik 2012)

	POS	CMPR	CMPR.ADV
'new'	*berri*	*berri-ago*	*berri-ki-ago*
'good'	*on*	*hobe-∅*	*hobe-ki-∅*

(30) a. Structure:



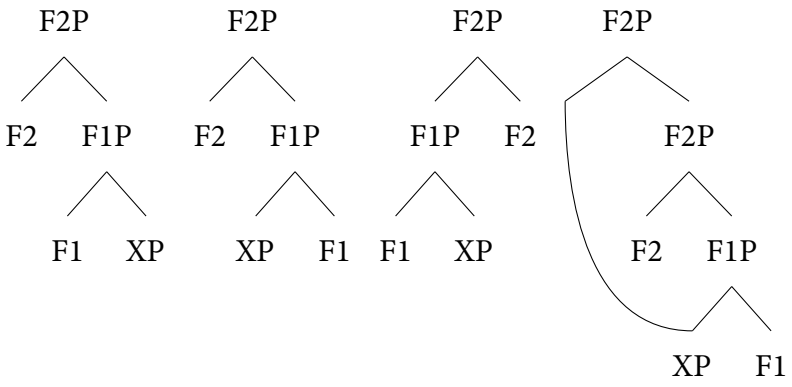
b. VI rules:

i. CMPR ↔ ∅ / $\sqrt{\text{GOOD}}$ ___

ii. $\sqrt{\text{GOOD}}$ ↔ /hobe/ / ___ CMPR

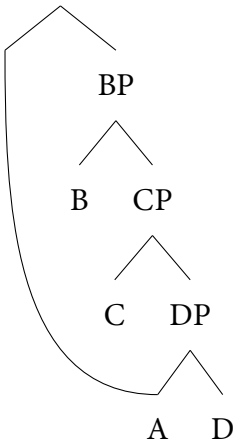
- A source of worry: as long as domain-based cyclicity is respected, is *any* allomorphy relation possible?
  - Depends on the treatment of mirror-violating orders: treatment of Khakas/Tamil depended upon the ProN-Num-K order being ambiguous
  - No such ambiguity is found in other orders of three affixes

(31) Structures behind other orderings of F2 > F1 > XP f-seq



- Depends on the treatment of prefixes: suppose an A1-B-C-D1 / A2-B-C-D2 alternation. Without rightward movement (Abels, Neeleman 2012), the only way to derive this is to assume that the prefix A1/2 itself moves from a D1/2-adjacent position

(32)



- There are some problems with this derivation (e.g., projecting movement) that I do not necessarily want to go into right now
- BTW: maybe rightward movement will be needed (see Bruening 2018)

(33) Armenian 'many' (Bobaljik 2012)

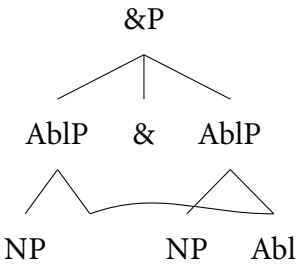
POS	CMPR	SPRL
šat	*aveli*	*amena-šat*
many	more	most
A	B	x-A

- In any case, Bešlin 2024 argues that this is **exactly the case**: "the findings reported here suggest that allomorphy may not be constrained by any mechanisms beyond phasal spell-out; any material in the relevant spell-out domain can serve as context for allomorphy."
- Upshot of my proposal: there is a well-defined way to model the non-local allomorphy relation

6 Short multidominant musings on suspended affixation

- Multidominant grammars have a more straightforward application in the domain of morphology: suspended affixation (see Kornfilt 2012)
- Word-internal version of Right Node Raising

(34) a. *yılan ve köpek-ten korkuyorum.*
snake and dog-ABL fear.1SG
'I fear snakes and dogs.' (Erschler 2018: ex.1c)

b.


- As with RNR, an ellipsis approach is also possible [snake-<ABL> & dog-ABL]
- Wrt. allomorphy, what does the multidominant structure buy us?
  - Allomorphy of the stem: the same prediction as morpheme-ellipsis analysis (see Erschler 2018 for Digor Ossetic and Guseva & Weisser 2017 for Meadow Mari)

(35) a. *dɐw(-bɐl) ɐma mɐdinɐ-bɐl isɐmbaltɪɐn.*
you.OBL-SUP and M.-SUP met.1SG
'I met you and Madina.' (Erschler 2018: ex.31a)

b. **du ɐma mɐdinɐ-bɐl isɐmbaltɪɐn.*
you.NOM and M.-SUP met.1SG
Int.: 'I met you and Madina.' (Erschler 2018: ex.31b)

  - Allomorphy of the affix itself: I have been unable to found such cases
  - I suppose that the prediction will be that the structure is illicit (cf. syncretism effects on RNR), unlike the prediction of the ellipsis-based approach, under which the configuration should be OK

(36) Do you know such cases?
  a. A-Aff1; B-Aff2
  b. ???[A & B]-Aff1/Aff2?

  - Note that such generalizations as Right Edge Constraint for RNR have been argued to hold for suspended affixation (at least, on a certain level of derivation, see Guseva & Weisser 2017 for discussion)

7 Conclusion

- My goal today was to show that independently motivated mechanisms save local conditioning of allomorphy and portmanteau formation from counter-examples of non-local allomorphy and pseudo-ABA phenomena.
- It seems, however, that I have stripped off the restrictiveness argument for locality conditions.
- Why just not drop it entirely?
  - I have 2 things to say
  - Thing 1: locality condition provides a clear mechanistic guidebook for Vocabulary Insertion
  - Thing 2: local relations on syntax are quite important (see Relativized Minimality, Tier-Strictly Local 2 languages on c-command strings, etc.). I find it crucial that our models incorporate it in one way or another
- In any case: locality may not be as restrictive of a condition as usually thought.

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