

Terek Kumyk negative copulas require non-terminal insertion

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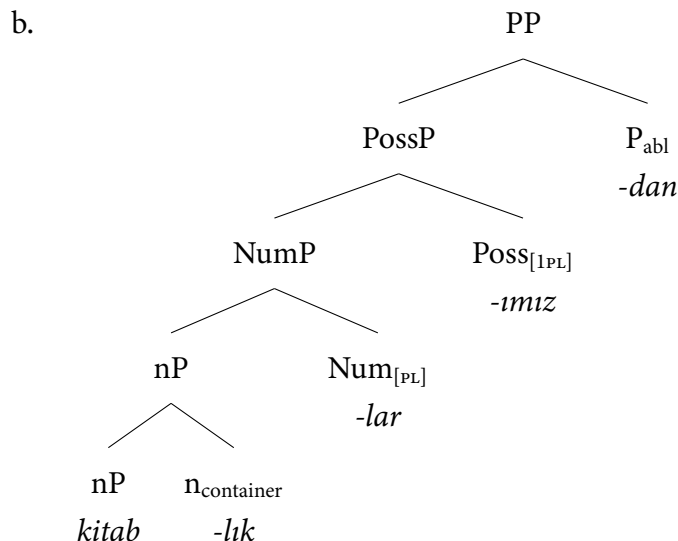
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1 Introduction

- Core tenet of many syntactic approaches to morphology: exponents correspond to syntactic terminals (Embick 2015). See Gouskova & Bobaljik (2020) for a recent overview of the issues surrounding the notion of insertion in DM and related models.

(1) Turkish (Fenger 2020:43)

- a. *kitab -lık -lar -ımız -dan*
book -NMLZ.CONTAINER -PL -POSS.1PL -ABL
'from our bookcases'



- Sometimes, however, it appears that a single exponent corresponds to multiple syntactic nodes

(2) Comparative formation in English adjectives

- a. *smart* → *smart-er* (regular additive morphology)
- b. *good* → *bett-er* (contextual allomorphy)
- c. *bad* → *worse* (cumulative exponence / portmanteau)

- Q: how do we model cumulative exponence (a.k.a. portmanteau formation)

(3) Two approaches to portmanteaux, represented graphically



- Analytical Idea 1: treat it as mutually conditioned allomorphy (the parse, then, is *worse-∅*)

- (4) a. $\sqrt{\text{BAD}} \leftrightarrow /worse/ \quad / ______ \text{CMPR}$
 b. $\text{CMPR} \leftrightarrow \emptyset \quad / \sqrt{\text{BAD}} ______$

- Work arguing in favor of this approach (or a version thereof: I ignore the issue of readjustment rules here): Embick & Marantz (2008); Embick (2010); Marantz (2013); Embick (2017); Paparounas (2024)
- This approach necessarily involves zero exponents, a murky and problematic topic in morphological theory: see Trommer (2012) for an illuminating discussion of *pro et contra* of zero exponents.
- Analytical Idea 2: there is a distinct process underlying cumulative exponence, namely, mapping of > 1 syntactic heads to morphological exponents

- (5) a. $\langle \sqrt{\text{BAD}}, \text{CMPR} \rangle \leftrightarrow /worse-/$
 b. $\sqrt{\text{BAD}} \leftrightarrow /bad-/$

- Some early work on DM involves a post-syntactic operation of Fusion, employed, among other things, to derive cumulative exponence. I take Fusion to exemplify a precursor to non-terminal insertion.
- Work arguing in favor of this approach: Neeleman & Szendrői (2007); Starke (2009); Radkevich (2010); Haugen & Siddiqi (2016); Svenonius (2016); Caha (2018)
- (6) **This talk's claim**
 Patterns of blocking of cumulative exponence present a morphology-internal argument in favor of non-terminal insertion
- The argument: modelling cumulative exponence as mutually-conditioned allomorphy makes incorrect empirical predictions for cases where cumulative exponence of > 2 terminal nodes is blocked

3 Making and blocking cumulative exponence

3.1 Making

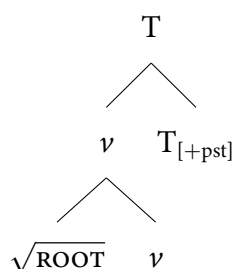
3.1.1 Zero-exponence and pruning

- As mentioned in the introduction, one way to model cumulative exponence is via mutually-conditioned contextual allomorphy

$$(10) \quad \begin{array}{ll} \text{a. } \sqrt{\text{BAD}} \leftrightarrow / \text{worse} / & / \text{ } ______ \text{ CMPR} \\ \text{b. } \text{CMPR} \leftrightarrow \emptyset & / \sqrt{\text{BAD}} ______ \end{array}$$

- Q: how does this approach extend to cases where > 2 terminal nodes are exponed together?

$$(11) \quad go \sim went$$



- Embick's 2010 proposal: pruning (nodes associated with zero exponents become invisible for the purposes of context sensitivity of Vocabulary Insertion). Silent v is transparent for allomorphy purposes, allowing $T_{[+pst]}$ to be exponed as zero as well.
- If something were to intervene between v and T , it would block zero-exponence of T but not zero-exponence of v .

3.1.2 Non-terminal insertion

- In contrast to a contextual allomorphy-based account, some authors have argued in favor of an operation that maps multiple terminal nodes to exponents
- It is known by many names: phrasal spell-out (Nanosyntax: Starke 2009); spanning (Svenonius 2016); stretching (Ostrove 2018). The mechanics differ, but in a way that isn't crucial here.
 - The argument here is mostly made with spanning / stretching in mind
 - The predictions are less clear in Nanosyntax-style model due to their adoption of Superset Principle: any subspan can be matched to an exponent associated with a span. Although see Blix (2021; 2022) for a Nanosyntax-compliant way to circumvent Superset Principle.
- Core idea: exponents are mapped to contiguous sets of terminal nodes

(12) $\langle \sqrt{\text{GO}}, \nu, T[+\text{PST}] \rangle \leftrightarrow /went/$

- If spanning-style VI rule is bled, all the terminals are predicted to be expounded independently
- This is in sharp contrast to the prediction of a contextual allomorphy approach to cumulative exponence, as outlined above
- Next subsection evaluates the different predictions

3.2 Blocking

- Consider the following examples from Terek Kumyk (< Turkic; my own fieldwork done in August 2022-2023 in Predgornoye village in North Ossetia, Russia). They show that there is special cumulative exponence of non-verbal copulas and negation.

(13) *Süt baxa ∅.*
milk expensive COP
‘Milk is expensive.’

(14) *Fatima-ni kniška-si bar.*
F.-GEN book-POSS.3SG COP.POSS
‘Fatima has a book.’

(15) *Süt baxa tügöl.*
milk expensive NEG.COP
‘Milk isn’t expensive.’

(16) *Fatima-ni kniška-si ök*
F.-GEN book-POSS.3SG NEG.COP.POSS
‘Fatima doesn’t have a book.’

- However, no cumulative exponence of negation and non-verbal copulas occurs when overt aspectual morphology occurs.

(17) *Süt baxa bol-ma-kan /*
milk costly be-NEG-PF
**tügöl-gen.*
NEG.COP-PF
‘Milk has not been expensive.’

(18) *Fatima-ni kniška-si bol-ma-kan /*
F.-GEN book-3 be-NEG-PF
**ök-ken*
NEG.POSS-PF
‘Fatima has not had a book.’

(19) *Süt baxa bol-ma-žaq /*
milk costly be-NEG-FUT
**tügöl-žek.*
NEG.COP-FUT
‘Milk will not be costly.’

(20) *Fatima-ni kniška-si bol-ma-žaq /*
F.-GEN book-3 be-NEG-FUT
**ök-žek*
NEG.POSS-FUT
‘Fatima will not have a book.’

- This pattern appears to be an intervention effect, but: the aspectual affix does not come in between the copula and negation. How come?
- My suggestion: the negative copulas expone the $\langle \nu, \text{Neg}, T \rangle$ span (assuming the little ν theory of copulas; Myler 2018)
- So the pattern fits the template of an intervention effect that cannot be accounted for without

non-terminal insertion

(21) a. The template:

i. X-Y-Z $\leftrightarrow$ / α /

ii. X-Y-H-Z $\leftrightarrow$ / β - γ - ϵ - θ /

b. The Terek Kumyk data:

i. ν -Neg-T $\leftrightarrow$ *tügül*

ii. ν -Neg-Asp_[PRF]-T $\leftrightarrow$ *bol-ma-kan-∅*

- Repeating the point: either ν or Neg has to be analyzed as zero-exponed in the negative copulas, conditioned by the other. In the [[[ν Neg] Asp] T] structure, Asp is unable to influence the local relation between ν and Neg.

4 Conclusion

- Two options for analyzing cumulative exponence:
 - mutual contextual allomorphy
 - non-terminal insertion
- These options make different predictions for intervention effects
- This talk has provided a pattern that suggests that the predictions of non-terminal insertion for intervention effects are borne out

⇒ Non-terminal insertion is at least available as an option for cumulative exponence

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