A novel parameter for the nominal domain in Slavic and beyond

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<u>Empirical background</u>: As is well known, Left Branch Extraction (LBE) can apply in, e.g., most Slavic languages (Czech, Polish, Russian, BSC, Slovenian, cf. (1)). By contrast, languages like English and Italian are subject to the Left Branch Condition (LBC, Ross 1986, cf. (3)), i.e., DET-categories (DET=demonstrative, wh-word, possessor…) obligatorily pied-pipe the nominal residue, cf. the contrast between (2)-a and (2)-b. (The Dutch *wat-voor*-construction and its German *was-für* counterpart (cf. Corver 2006, Leu 2008) require a separate discussion.)

(1) a. [Č′ju knigu]$_i$ čitaješ t_i?   b. Č′ju$_i$ čitaješ   [t_i knigu]?
     whose book you-are-reading   whose you-are-reading   book
     'Whose book are you reading?'   *(Russian, Ross 1986:145ff)*

(2) a. *Whose$_i$ are you reading [t_i book]?   b. [Whose book]$_i$ are you reading t_i?

(3) ***Left Branch Condition***
    No NP which is the leftmost constituent of a larger NP can be reordered out of this NP by a transformational rule.

An equally well-known generalization maintains that LBE-languages feature no articles (Uriagereka 1988, Corver 1992, Bošković 2005) and optionally allow the addition of a DET-category, cf. (4). By contrast, "DP-languages" obligatorily require the presence of a DET-category, cf. (5) (Stowell 1991, Longobardi 1994), including articles.

(4) … no (èta) mašin-a byla očen' dorogoj
    but DET car-NOM was very expensive
    'but the car was very expensive'   *(Russian, Czardybon 2017 :86)*

(5) John met *(the/a) president of a mining company yesterday.   *(Stowell 1991:37)*

The contrast is commonly cast in terms of differential settings of the values of an NP-/DP-parameter (Bošković 2005 *et seq*). While the proposal of this parameter sparked an insightful industry of research, problems include that subsequent studies directly undermine its validity and criteria, e.g., by proposing DP-analyses for NP-languages (cf. Syed and Simpson's 2017 study on Bangla nominal phrases).

<u>Observation</u>: All the mentioned article-less LBE-languages feature morphologically rich nominal case and gender/declension class inflection, while all the article languages observing the LBC feature morphologically poorly inflecting

Ger	M.SG *Tisch* ('table')	N.SG *Buch* ('book')	F.SG *Tür* ('door')	*Ru*	M.SG *zavod* ('factory')	N.SG *mest* ('place')	F.SG *tetrad* ('notebook')
NOM				NOM		-o	
ACC				ACC		-o	
DAT				DAT	-u	-u	-i
GEN	-(e)s	-(e)s		GEN	-a	-a	-i

nouns. Even for a language like German, Müller (2002) ends up with as little as the one form in the paradigm of nominal inflection in the left table (the two forms of weak masculine noun inflection being a separate matter). Compare this to four forms in Russian nominal inflection classes I, III and IV (from Müller 2004) in the right table, which does not even consider instrumental and locative case yet.

<u>New Analysis</u>: The analysis is couched in the framework by Chomsky (2013, 2015/POP(+)) in which the set-forming operation Merge applies optionally (i.e., freely), whilst phase-by-phase transferred syntactic representations meet 3rd factor principles of efficient computation (*Minimal Search*) and interface conditions. One of the latter is that every syntactic object requires a label. POP proposes that this requirement is achieved in a computationally efficient manner by the Labeling Algorithm LA. The first step in the derivation involves a category-neutral root R and a categorizer K (POP: 47) introducing an asymmetry: While R does not, K bears grammatical features and is thus identified by the LA. Thus, a nominal phrase comprises the nominalizing head *n* and R (cf., e.g. Borer 2005) yielding $\{n, R\}=\alpha$. How is the optional

and the obligatory empirical pattern (1)/(2)/(4)/(5) captured? This talk seeks to capture it in terms of "strength" and "weakness" for the identification by the LA (cf. POP+ on strong and weak T). It makes the novel proposal that this notion carries over to nominal inflection, cf. (6), in which richness and poverty of nominal inflection is labeling-relevant:

(6) *The Nominal Strength Parameter*
   a. <u>weak n</u>/n_{wk}: English, Italian, German …   b. <u>strong n</u>/n_{str}: Czech, Polish, Russian …

Following Sag, Wasow & Bender (2003) and Chomsky (2007: 25-26), DET-categories are internally complex, i.e., phrasal, here represented as DP (not to be confused with the DP-hypothesis where DP dominates NP, cf. Abney 1986 *et seq*). Given (6)-b, the LA unproblematically identifies α's label as nP in n_{str}-languages, because in contrast to n_{str}, n_{wk} is "too weak" to label by itself (cf. POP+ on Italian vs. English T). Consequently, no DP is required in n_{str}-languages as shown in (7), where the verb selects either [DP nP$_{str}$] or nP$_{str}$. By contrast, [n_{wk} R] requires modification, otherwise the verb selects an unlabeled unit. Set-Merge of DP comes to the rescue "supporting" n_{wk} when the LA searches for α's label as shown in (8). The LA finds the shared feature borne by n_{wk} and D.

(7)   {V, {$_{α=nP}$ (DP), {n_{str}, R}}}   (8) {V, {$_α$ *(DP), {n_{wk}, R}}}

Rich noun inflection languages feature n_{str} and do not require a DET-category (while optionally allowing it). By contrast, n_{wk}-languages require a DET-category, providing a new solution to the puzzle in (5). What is label of the nominal unit? Languages like German provide evidence that LA finds at least φ-features: Number and gender (and Case) are shared between the DP and n, here tentatively given as f:

(9)   The label of {DP=*the*, nP=*president*} is ⟨f, f⟩, where n and D bear f and agree wrt f.

An important consequence of (6) is that we can unify the EPP-effect within the nominal domain with ECP-effects (cf. POP+ for the corresponding unification within the clause): LBE is permitted in n_{str}-languages: No matter if DP is present, absent, or extracted, the LA finds n_{str}. As shown in (10), LBE does not obviate the labelability of α: n_{str} requires no "support." This contrasts with the situation in (12): Since the trace of DP is invisible for the LA (cf. POP, Epstein et al. 2020) within α and since n_{wk} is crucially too weak to label, LBE leaves α unlabeled, thus violating the labeling requirement. Consequently, the labeling requirement in conjunction with (6)-a deduces the LBC (3).

(10) DP$_i$ … {$_{α=nP}$ t_i, {n_{str}, R}}   (11) *DP$_i$ … {$_{α=?}$ t_i {n_{wk}, R}}

During the talk extensions to <u>definiteness clitics</u> in Bulgarian and Macedonian will be considered from the present approach, both language being subject to the LBC. They feature obligatory definiteness clitic for the expression of definite complex nominals (e.g., *-ta* in the Bulgarian (12)).

(12)   kniga-**ta**   (13) goljamo-**to**   momce
       book-DEF   big-DEF.M.SG boy
       'the book'   'the big boy'
                                                      (Dobrovie-Sorin & Giurgea (2006:93))

Under adjectival modification, Bulgarian and Macedonian the definiteness marker cliticizes to the linearly first adjective, but not on demonstratives and degree particles within AP.

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