
RETHINKING SECOND-POSITION EFFECTS

Moreno Mitrović
 BLED INSTITUTE

1 INTRODUCTION

Thanks to Roberts (2010), the second-position (2P) effect is given a natural explanation using narrow-syntactic utilities alone, resting on Defectivity. In this paper, I review and extend a narrow-syntactic approach to some other types of 2P effects that have, as far as I know, not been studied in tandem.

There are three core 2P types that fall within the scope of this paper, based on the categorial *size* properties of the 1P *prima facie* ‘hosting’ element. The first is the one where the host is a maximal category—these constructions are exemplified by verb-second (V2) or Left Branch Extraction (LBE) phenomena. The second type involves a host of minimal category and are demonstrated by V-fronted constructions (e.g., Long Head Movement in Breton, V-topicalisation in Slavonic, etc.). The last type features non-constituent hosts comprising of a head, say a preposition, and a maximal category, say an AP. This last type is incarnated by, what Bošković (2005) calls, Extraordinary LBE (XLBE). It is this last type that is most resistant to narrow-syntactic explanation and, as far as I can gather from the literature, no definitive and purely syntactic account has been proposed.

The desideratum is to derive the three core types of 2P effects using Chomsky’s (2001) triadic characterisation movement that Roberts (2010: 208) subjects to parametrisation (1)

	MOVE	AGREE	PIED-PIPE	
a.	+	+	+	A-movement
b.	+	+	–	incorporation
c.	+	–	+	\bar{A} -movement
(1) d.	–	+	–	Agree
e.	–	–	–	∅
f.	–	+	+	*
g.	–	–	+	*
h.	+	–	–	\bar{A} -incorporation

If all three operations apply in tandem, A-movement obtains, while a combination of Move and Pied-pining along yield \bar{A} -movement. Head movement, on the other hand, can be seen as deriving from a combination of Agree and Move. While options (f) and (g) are impossible, the last option can be seen as corresponding to predicate cleaving or \bar{A} -incorporation. It is from this last combination of pure movement that I will derive XLBE.

Roberts (2010: 421) defines intrinsic formal features (IFF) on terminals in the clausal spine which we give in Tab. 1 along with corresponding IFFs in the nominal domain.

(A) IFFs in the verbal domain				(B) IFFs in the nominal domain		
C^{min}	[iC]	[iT]	[iV]	P^{min}	[iD]	[iN]
T^{min}		[iT]	[iV]	D^{min}	[iD]	[iN]
v^{min}			[iV]	n^{min}		[iN]
V^{min}			∅	N^{min}		∅

TABLE 1: *Intrinsic formal features (IFF)*

We assume that prepositions have no other IFF other than N and D. By adopting the view that the presence of (phasal) D is subject to cross-linguistic parametrisation, then languages lacking D-structure will correspondingly have prepositions with only one IFF, i.e. N.

The remainder of this section is devoted to explicating some background assumptions. After a brief survey of where the explanation for 2P effects is to be found (§1.1), the preliminary details of N/D parameter of Bošković (2005, 2008), which we assume, are given in §1.2. Finally, in §1.3, I outline the Defectivity system of Roberts (2010) that underlies the account proposed here.

1.1 The 2P effect and its explananda

We now lay out and discuss two general stances to explaining cliticisation phenomena. By the end of this subsection, we hope to demonstrate that one of these approaches should be preferred on both theoretical and empirical grounds.

The relevant schools of thought concern themselves with the following question: where does cliticisation take place? Two answers are entertained: wither cliticisation configurations are established in narrow syntax (NS) or, else, clisis is a matter of post-syntactic, or more precisely phonological or prosodic, displacement and rearrangement. In the remainder, we provide a two-tiered motivation for preferring the former over the latter.

A phonological/prosodic (i.e., ‘anti-syntactic’) motivation for second-position (2P) cliticisation is most notably and influentially characterised by the theory of Prosodic Inversion (PI) as advocated by Halpern (1992, 1995). As Roberts (2012b: 422) notes, there are three ingredients to this theory as given in (2)

- (2) i. 2P clitics are prosodically subcategorised to appear right-adjacent to a prosodic word;
 ii. clitics adjoin to IP;
 iii. where no element with a phonological matrix appears to the left of the IP-adjoined clitic then PI must apply, in line with (3).
- (3) CLITIC ▷ X ▷ Y → X ▷ CLITIC ▷ Y

Given a relevant prosodic domain, the clitic and the right-most element thus prosodically flip and the second-position effect obtains (3), in line with the principles in (2). We now briefly lay out some arguments that undermine the nature of such principles.¹ Firstly, with respect to (2i), the 2P order may be derived using more general syntactic principles, as we will demonstrate. Additionally, categorising an element as, and assigning it a descriptively arbitrary label of, a clitic is extraneous insofar as the ‘clitic effect’ may arise from the configuration of the clitic with respect to other elements, especially its ‘host’. Secondly, and in connection to (2ii), it is not only stipulative but also counter-theoretical to assume that clitics adjoin to IP. On the one hand, the current minimalist model of phasal syntax demonstrably takes the C, and not the T, head to be a phase head and, as such, the locus of clitic-clustering should be on phase heads, i.e. C^0 and v^0 (we demonstrate the conceptual and empirical connection between cliticisation target sites and the phasal nature of such sites below but see Roberts (2010); Roberts (2012a) for a detailed account and motivation). An additionally problematic conception of (2ii) concerns the nature of ‘adjunction’ which cannot be maintained in line with the standard assumptions of syntax. This proviso of PI predicts all clitics to either be base generated at IP-level or internally moved to an IP-level adjunct position. Consider empirical instances of DP-level conjunction clitics in Indo-European (e.g. Latin *-que*, or Hittite *-a*) or, say, object clitics in Romance or South Slavonic in relation to this proviso. The amount of stipulation that would ensue if we assume there exists movement of a DP conjunction in the former example or object DP in the latter in order to render the syntactic conditions for PI to apply, in line with (2ii), would be too great for a theory of syntax to remain consistent.

¹ In doing so, we also adopt the rationale of Roberts (2012a: 422).

On a more general level, the existence of a structure-tampering operation, such as PI as formulate above, breaches the basic tenets of the minimalist linguistic theory or, at least, cannot be defined in accordance with the general minimalist assumptions. Since the Merge operation derives syntactic structures and the nature of movement operations, it has to be confined to the core syntactic module of grammar. We thus cannot maintain this theoretical principle and expect to find displacement operations, derived by Merge, outside the modular confines of syntax.

A less general and more damaging evidence against PI is empirical. We briefly provide an argument coming from Ser-Bo-Croatian Left Branch Extractions (LBE). Bošković (2009), among others, convincingly shows that PI cannot account for the following morphosyntactically conditioned violations of the Left Branch Condition (LBC). While non-extracted DPs containing both forenames and last names allow the forename to be unmarked for case, a left-branch extracted forename must obligatorily be case-marked; in the case of (4), accusative.

- (4) a. i. Lav-a Tolstoj-a sam čitao
 Leo-ACC Tolstoy-ACC AUX.1.SG read.PPL.SG.M
 ‘I’m reading Leo Tolstoy.’
 ii. Lav Tolstoj-a sam čitao
 LEO-NOM/Ø Tolstoy-ACC AUX.1.SG read.PPL.SG.M
 ‘I’m reading Leo Tolstoy.’
 b. i. Lav-a sam Tolstoj-a čitao
 LEO-ACC AUX.1.SG Tolstoy-ACC read.PPL.SG.M
 ‘I was reading Leo Tolstoy.’
 ii. *Lav sam Tolstoj-a čitao
 LEO-NOM/Ø AUX.1.SG Tolstoy-ACC read.PPL.SG.M
 ‘I was reading Leo Tolstoy.’

If some post-syntactic algorithm did in fact derive PI, it is nearly impossible to account for the empirical facts stated above without having the phonological-prosodic module of grammar be sensitive to narrow morpho-syntactic properties such as case marking.

Also consider the fact that it is not clitics alone that may interrupt a complex DP, such as ‘Leo Tolstoy’-type compounds names above. As Bošković (2009) observes, a non-clitic item, such as a full finite lexical verb *čitam* ‘read.1.SG.PRES’, may also break up the name (5). In line with Roberts (2012b), we assume that the first-name D^{max} \bar{A} -moves to the position of SPEC(Force^{max}) with the full verb remaining in T^{min}. Note further the obligatory case-marking on the extracted forename DP.

- (5) Lava čitam Tolstoja
 Leo.ACC read.1.SG.PRES Tolstoy.ACC
 ‘I’m reading Leo Tolstoy.’

Furthermore, the following is also well-formed, which lends empirical support to Roberts’s (2010) motivation that \bar{A} -movement of minimal categories should exist. The continued range of cases of clitic interruptions of the First-Last-Name DP should amplify empirically this argument.²

- (6) a. (?) Lava sam čitao Tolstoja
 Leo.ACC AUX.1.SG read.PPT.SG.M Tolstoy.ACC
 ‘I (have) read Leo Tolstoy.’
 b. (?) Lava čitao sam Tolstoja
 Leo.ACC read.PPT.SG.M AUX.1.SG Tolstoy.ACC
 ‘I (have) read Leo Tolstoy.’
- (7) a. Lava mi je Tolstoja dao da čitam
 Leo me.DAT is Tolstoy gave that read.1.SG.PRS
 ‘He gave me Leo Tolstoy to read.’
 Lava sam joj Tolstoja dao da čita
 Leo am her.DAT Tolstoy gave that read.2.SG.PRS
 ‘I gave her Leo Tolstoy to read.’
 b. Lav si je Tolstoj (sam) doručak pravio
 Leo self.DAT is Tolstoy (himself) breakfast made
 ‘Leo Tolstoy (himself) made himself breakfast.’

If the theory of PI cannot account for the contemporary LBE phenomena found in Ser-Bo-Croatian, we inductively find it untenable to entertain this theory as general explanandum applicable to a cross-linguistic patterns of cliticisation which also display LBC violations. On grounds of both theoretical and empirical motivation, we thus pursue a NS aetiology of cliticisation, also for reasons of more general parsimony, as noted by Roberts (2010: 73–4) namely we choose, and logically prefer not, to accord extra-syntactic factors too prominent a role in order to maintain the approach in full generality. It is thus, *ceteris paribus*, more theoretically consistent to adhere to the central syntactic account and derive a maximally possible account of the distribution of facts from that.

More specifically, since a NS account of cliticisation does not suffer from the two drawbacks stated above, we are lead to maintain this assumption in our analysis.

² My speakers concede that (6) is degraded.

1.2 The N/D parameter

Assuming that D^{max} constitutes a phase, Bošković (2005) provides an account of why some languages allow and others disallow LBE. Given that D^{min} is a phase head, it prohibits movement of its complement with only its edge being accessible as per the PIC. His first assumption is that languages like Ser-Bo-Croatian lack the D-layer in their nominal spine and, due to this, lack a nominal phase, making their interior accessible. His second assumption is that adjunction structures come in two parametric options: either the adjective takes an NP complement (AP-over-NP) or the AP is adjoined to NP (NP-over-AP).

Consider a scenario of AP-extraction in English which is barred due to the presence of the phasal D. In order for AP to extract, it must pass through D's edge, i.e. $SPEC(D^{max})$. This, however, is an anti-local move and thus prohibited by the grammar. Thus, the combination of the PIC and Anti-Locality thus ban LBE in D-containing language like English.

By contrast, Bošković (2005, 2008) contends that Ser-Bo-Croatian is a D-less language in which nominals are not phasal, hence the PIC is inapplicable. Consequently, there is no need for anti-local moves of the AP since the AP may immediately and directly extract to the final position. This is the line of reasoning we adopt on both empirical and theoretical grounds.

1.3 Defectivity

The second and more foundational is the assumption surrounding triggers of head-movement. Roberts's (2010) system predicts incorporation to take place where an Agree relation holds between a probe and a goal such that the formal features of the goal forms a proper subset of the features specified on the probe. This constitutes the goal as defective and such goals incorporate. The concept of Defectivity thus regulates movement of the minimal category, *qua* clitic.

(8) DEFECTIVITY (Roberts, 2010)

A goal G is defective iff G 's formal features are a proper subset of those of G 's probe P .

Thus, in more formal terms, a set of formal features (F) on a minimal category that enters an Agree relation as a Probe (P) will incorporate the Goal (G) iff (9) is met.

(9) $F_G \subset F_P$

For instance, Romance pronominal objects clitics are taken to correspond to $\phi^{min/max}$, lacking a D feature. The v^{min} , bearing an IFF [*iV*] (Tab.

1A), probes for valuing its [$u\phi$]. Upon valuation, $F_C \subset F_P$ holds and the object $\phi^{min/max}$ incorporates into v^{min} . As Roberts (2012a: 391) further notes, “This means that the Match relation holding in virtue of Agree causes the host to become a featural copy of the probing features of the host.” The chain reducing algorithm that applies post-syntactically, and which ensures economical assignment of phonological indices, will treat the host-probe and the defective clitic-goal as a single feature bundle. Thus, for a chain $\langle [G + P], t_C \rangle$, the algorithm will pronounce the head of the chain, giving the effect of movement.

By contrast to Romance, Slavonic clitics are v -oriented but cluster in the C-domain. Roberts (2010) derives the C-orientation by positing that Slavonic clitics are not $\phi^{min/max}$ elements (since they would be incorporating otherwise) but $D^{min/max}$. Since v^{min} has no uninterpretable D-feature, these clitics can thus escape incorporating into v .³ By virtue of C’s bearing an uninterpretable D-feature, pronominal $D^{min/max}$ elements (as well as D-bearing auxiliaries sitting in T^{min}) cliticise onto C.

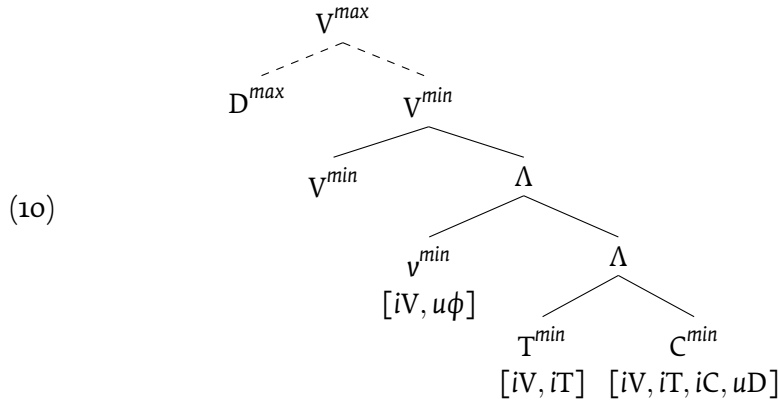
In conclusion to this section, consider the apparent contradiction that arises in our assuming the systems of Roberts (2010) and Bošković (2005). For Roberts (2010), it is critical that pronominal clitics in Ser-Bo-Croatian be $D^{min/max}$. For Bošković (2005), on the other hand, Ser-Bo-Croatian has no D. I propose to reconcile the two approaches, in their assumptions and conclusions, by treating Ser-Bo-Croatian pronominal clitics not as D element but as making up $N^{min/max}$. To maintain the defectivity approach of Roberts (2010), we take the C^{min} , conversely, as being specified with a [uN].

2 THE UNROLLING SPINE: SHIMADA (2007)

While our account rests on the notion of Defectivity as underlying narrow-syntactic incorporation as per Roberts (2010), we add another theoretical ingredient.

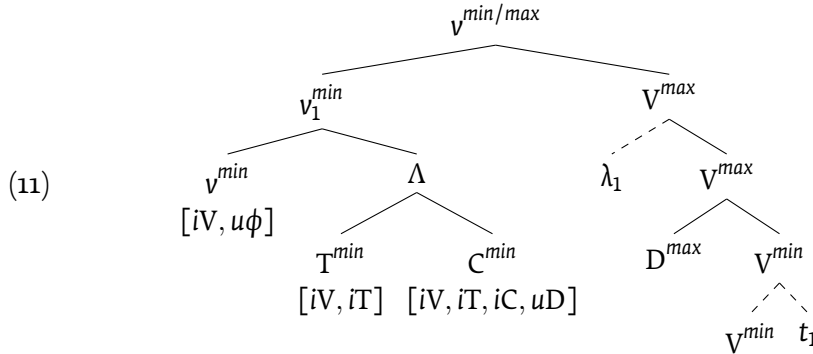
We follow Shimada (2007) in assuming that the clausal spine in fact results from a successive unrolling or excorporation of a head verbal complex that contains the entire clausal extended projection. We assume that the label every branching non-root node in the head-complex lacks the label (Λ). We define on the clausal terminals their IFFs along with the [$u\phi$] and [uD] at phasal levels of v^{min} and C^{min} , respectively (in line with Roberts 2010).

3 On the escape system, see Roberts (2012b: 391-2) and references there.

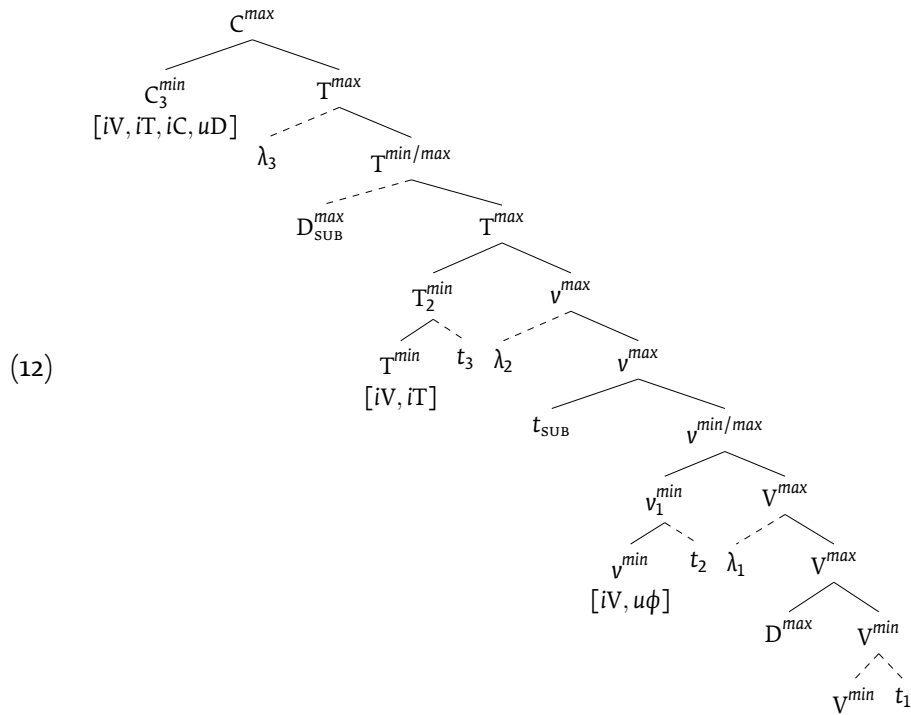


Note that prior to excorporation of $\text{COMPL}(V^{min})$ in (10), there is only one pair of terminals satisfying the Defectivity condition on incorporation: T^{min} and C^{min} . However, the LCA prohibits such movement making incorporation inapplicable at this stage.

Once the V has combined with an argument, say D^{max} (which has undergone spine-unrolling), its complement, headed by v^{max} excorporates to the root for two reasons: semantically, there is a type-mismatch (hence the λ) and, perhaps more importantly for our syntactic purposes, $\text{COMPL}(V^{min})$ is lacking a label. Once it excorporates, the c -selecting head, v^{min} projects the label (11).



Given the Strong Cycle, V^{min} -incorporation takes place and External Merge of the argument, checking $[u\phi]$ on v^{min} . In the next derivational step, the remaining Λ -complex containing T^{min} and C^{min} excorporates for the same reasons we gave earlier. The result, after subject raising (SUB) and final excorporation of C^{min} from the T -complex, viz. $\langle C_3^{min}, \lambda_3, t_3 \rangle$ chain, yields the following structure:



The resulting derivation is identical to the standardly assumed one, hence standard operations, including A- and \bar{A} -processes, apply. I will tacitly assume in the remainder of the paper that the spine unrolls along the lines just sketched and, therefore, use a traditional and simplistic drawing of the trees. In §4, the details of the assumptions concerning the excorporational onset of derivations will become clear.

3 DERIVING THE CONSTITUENT-FIRST 2P EFFECT

In this section, I provide a derivational account of constituent-first 2P effects. In §3.1, I sketch an account of Wackernagel effects found across old IE conjunction structures which feature a minimal category as the host of enclisis. I turn to hosts of maximal categories in §3.2, and, lastly, to a phenomenon which seems to alternate between phrase/head-first in Slavonic in §3.3,.

3.1 X-first

Word-first constructions are a wide-spread phenomenon in old IE coordination structures and were first described by Wackernagel (1892). We cite below three examples from Old Irish (?), Gothic (14) and Old Avestan

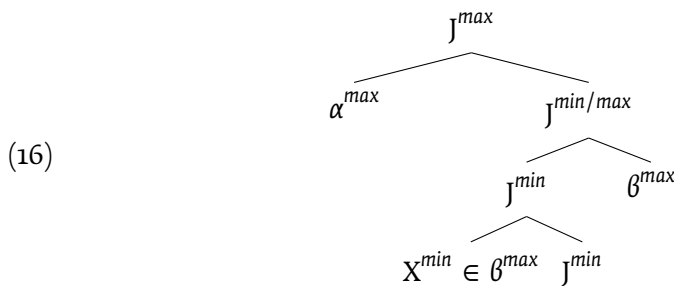
(15).⁴

- (13) ...ba ċ ri Temrach
 COP and king Tara.GEN
 ‘And he was king of Tara.’ (Old Irish; *Laws*, 4.179; Thurneysen 2003)

- (14) wopida Iesu qaþ **uh** imma.
 called.PRET.3.SG J.ACC said.PRET.3.SG μ^0 and him.M.DAT.SG
 ‘(Then Pilate entered into the judgment hall again, and) called Jesus, and said unto him.’ (Gothic; *Codex Argenteus*, Jn. 18:33)

- (15) yūžəəm aēibiiō ahurā aogō
 you.2.SG.NOM them.PL.DAT lord.M.SG.VOC strength.N.SG.ACC
 dātā ašā xšaθrəm cā
 give.2.PL.AOR.IMP truth.N.SG.INST power.N.SG.ACC and
 ‘O Lord, may you give strength to them₂ through Truth and that power [...]’
 (Old Avestan; *Yasna Haptanghāiti*, 29.10)

The common pattern that emerges in these coordinate constructions is that there is exactly one word preceding the conjunction maker. Assuming a J(unction) structure, we take this one-word precedence to derive from head-movement from within the internal (second) conjunct:



Coordination structures of this type are semantically unmarked across all old IE languages. Since incorporation into the coordinator is consistently blind to the category of the incorporee, \bar{A} -incorporation would appear as the best candidate for an explanandum. This would require positing some \bar{A} -feature such as [EF] on J^{min} , making it phasal in nature. Assuming that it lacks a categorial label (see Chomsky 2013, *int. al.*), J^{min} has some IFF and an uninterpretable categorial feature which is checked via

⁴ For a detailed view, see Mitrović 2014, and references therein.

c-selection. Note that its bearing an uninterpretable feature makes J^{min} potentially phasal in nature.⁵

An alternative view to \bar{A} -incorporation would be to adopt an Agree-based account of incorporation. Assume J has no $[EF]$ specified but does have a category feature without a value, as per standard assumptions. Once valued, every accessible minimal category in $COMPL(J^{max})$ is a defective goal and the closest one undergoes incorporation. (For a synchronic and diachronic account of the syntax of coordination in IE, see Mitrović 2013, 2014.)

Similar 2P effect with a minimal category can be observed in Slavonic. Unlike the Wackernagel data above, it is the pronominal clitics that undergo movement by virtue of their being defective goals. In Slavonic, pronominal clitics are treated as $D^{min/max}$ which are probed by a $[\mu D]$ -carrying C (more precisely, Fin^{min}). Once incorporated, the C 's $[EF]$, specified presumably on $Force^{min}$, is checked via \bar{A} -movement to its edge. (See Roberts 2012b: 386–399 and citations there for details.)

3.2 XP-first

The phrase-first 2P effect is elegantly parallel to the head-first 2P effect. One difference is that in XP-first constructions, the phasal $[EF]$ is checked by phrasal movement.

The Germanic V2-type falls into this category and differs minimally from the Slavonic type in that, as Roberts 2012b: 401 writes, while Slavonic 2P “require[s] fronting of just one element—*either* a head *or* an XP—the latter require fronting of *both* a *head* and an XP.”

3.3 XP/X-first

In what follows is the core of this section: there are configurations which seemingly alternate between X-first and XP-first. The constructions in question concern Ser-Bo-Croatian subject conjunctions (SCS).

The empirical quirk of this section is the following pair of data:

(17) [Ja i Mujo] smo otišli na pivo.
I and M will.PL go.PRPL on beer
'Mujo and I are going for a beer.'

(18) [Ja smo i Mujo] otišli na pivo.
I will.PL and M go.PRPL on beer
'Mujo and I are going for a beer.'

5 Mitrović (2014) provides semantic arguments for information-related properties of 2P in IE, lending support to the \bar{A} -incorporation analysis.

While (17) shows a run-off-the-mill subject conjunction structure, the availability of (18) does not readily follow, *prima facie*, from Roberts's (2010) tenets. With regards to the conjunction subject, the plural auxiliary verb *ćemo*, once raised from Aux^{min} to T^{min} , is in 2P with respect to the *maximal* category linearly to its left. What (18) shows, however, is that the Aux may be placed in a 2P with respect to the *minimal* category – we refer to this construction as Second-Word (2W) effect.

On independent empirical grounds, then, are we led once more to reconsider the 2P effect with regards to the structural size of the first-position host.

While nominal clitics in Ser-Bo-Croatian are D^{min} elements that obligatorily incorporate into (some) C^{min} by virtue of defectivity, there is no Defective relation constituted by an Agree chain between a clausal head and the verb, or Aux. Roberts (2012b: 391) takes the auxiliary clitics to also bear D-features, just like nominal clitics, and assumes they are first-merged in T^{min} . Hence they are specified with $[\text{iD}, \text{iT}]$. Since Fin also bears $[\text{iT}]$, auxiliaries are further assumed to incorporate to Fin^{min} , presumably after its $[\text{u}\phi/\text{D}]$ is valued. By contrast, full main verbs do not raise to Fin since they lack the relevant $[\text{iT}]$ feature. If the Aux/T moved, accordingly, to Fin, wrong word order would ensue, assuming the subject conjunction is in $\text{SPEC}(\text{TP})$. We exploit this seemingly wrong prediction to derive the 2W effect.

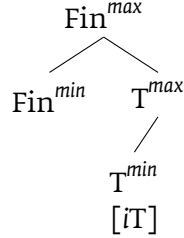
We take a slight excursus to discuss Ser-Bo-Croatian auxiliary clitics. While auxiliaries are in T^{min} , by being first-merged there Roberts (2012b) or moving there from, say, Aux^{min} , there is one auxiliary clitic, *je* 'is.3.sg', displaying different distribution. As Bošković (2004) has shown, this auxiliary is first-merged in C, which we identify as Fin.

	ϕ	SG	PL
(19)	1	sam	smo
	2	si	ste
	3	<i>je</i>	su

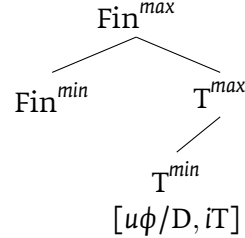
To maintain the special syntactic status of *je* as a C-occupying clitic with its morphology, I take its form to be an allomorphic default. Hence, at C-level, its ϕ/D -features are not only irrelevant but non-existent:

- (20) a. $/\text{je}/ \Leftrightarrow \text{Aux}$
 b. $/\text{sam}/ \Leftrightarrow \text{Aux} / [1.\text{SG}]$
 c. $/\text{smo}/ \Leftrightarrow \text{Aux} / [1.\text{PL}]$
 d. ...

(21) [3.SG] Aux:

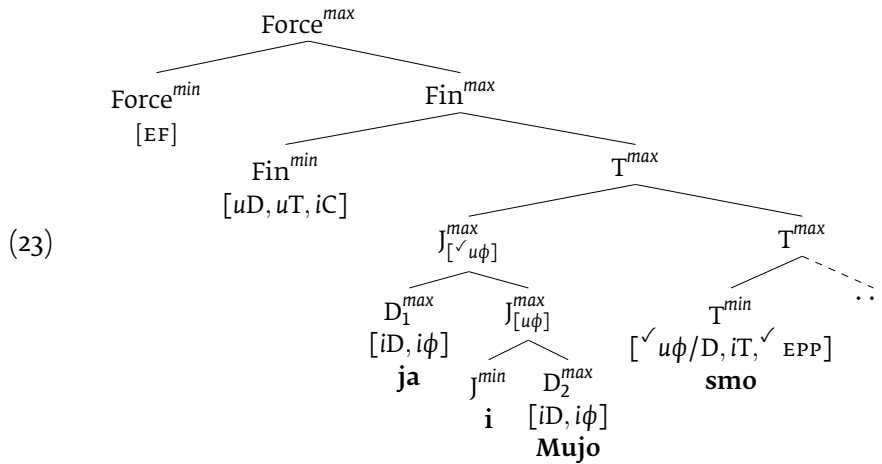


(22) non-[3.SG] Aux:



This leads me to assume that Fin, where *je* is first-merged, does not carry a probing feature [$u\phi$] but, as Roberts (2010); Roberts (2012b) contends on independent grounds, the probe [uD].

A standard 2P clitic construction with a conjoined subject is then the one in which Aux is *in situ* in T^{min} .⁶



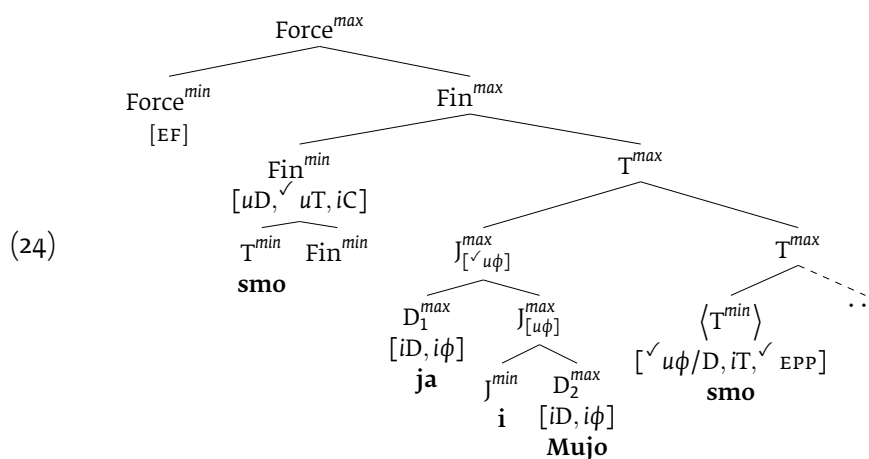
Note that the [1.SG.NOM] pronoun *ja* is not a clitic but truly a D^{max} . This is confirmed by the fact that *ja* may coordinate and a pronominal clitic like *me* ‘me.ACC.SG.1’ may not, since only maximal categories coordinate (Kayne, 1994).

As for the position of the Aux/ T^{min} , we take it to raise to Fin^{min} , as per Roberts (2012b: 396) and references therein. Full main verbs or long/non-clitic auxiliaries, are taken to originate as V^{min} and raise to T^{min} , presumably via v^{min} and any other relevant aspect/mood head on the way to T^{min} . Once there, however, full verbs and full auxiliaries are not assumed to be

6 Since the system resting on Defectivity we are adopting requires valued uninterpretable features to not undergo deletion upon valuation, we represent checked [uF]s with a superscripted \checkmark next to the [uF]. Parsimoniously equally, if [uF] do not delete once checked, neither should discourse-related [EF] or [EPP] delete by the same token.

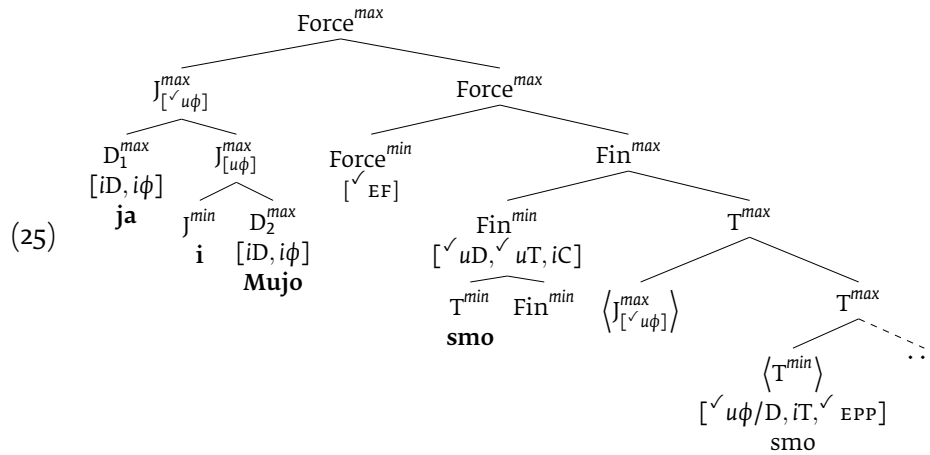
able to raise to Fin^{min} as Fin^{min} lacks the V-feature specified on the complex T^{min} . As such, they are fronted by virtue of [EF] on $\text{Force}^{\text{min}}$. This, then, constitutes an instance of \bar{A} -movement of a minimal category to the $\text{SPEC}(\text{ForceP})$ position, as Roberts (2012b: 396) contends.⁷

The set of probing features [uD, uT] on Fin^{min} in (23) are valued with the raising or incorporation of T^{min} which carries the corresponding valued for [uD, uT] and which constitutes a defective goal with regard to Fin^{min} which, aside from the two uninterpretable features, bears some intrinsic C-feature.



Upon raising to Fin^{min} , the subject, independently of its internal (non-/conjunctive) structure, moves to $\text{SPEC}(\text{ForceP})$ to check the relevant [EF]. The subject may well move to, say, $\text{SPEC}(\text{TopP})$ and check the clausal [EF] there; nothing hinges on the precise location of the subject.

7 Another view would be to maintain head-to-head movement and assume that Force 's EF may be checked by incorporation of T^{min} , as Roberts (2012b) proposes for European Portuguese. If this is desirable, then incorporation is extendable to \bar{A} -processes, as well as *prima facie* potentially non-defective goals.



The derivational step involved movement of the maximal category for purposes of [EF]-valuation. How do we then derive the 2W configuration using the exact set of narrow-syntactic devices?

The most obvious option, given the analysis thus far, is to focus methodologically on the derivational steps motivated thus far and maintain as much as possible for the 2W configuration. In this view, we solely restrict or modify the application of a rule that operates anyway. Since a Coordinate Structure (CS) should not introduce any special restrictions on phrase structure, it is untenable on conceptual grounds to assume that a presence of a subject CS would tamper with the rules operating independently of it. What we would like to maintain, *ceteris paribus*, is the raising of the defective T^{min} as probed by Fin^{min} 's $[uD, uT]$, and the raising of the subject to check locally the [EF].

Two narrow-syntactic options make themselves available and amenable to an analysis that bears out the desired word order. The first is methodologically parsimonious insofar as it maintains both of the movement steps. One entails *movement out* of a CS, violating Ross's (1967) Coordinate Structure Constraint (CSC). Another option violated anti-locality involving *movement into* the CS. In what follows, we take each of the analyses concluding with a note on theoretical risk management and appeal to some wider economy considerations. Let me repeat the relevant 2W configuration we focus on: in the two subexamples, we make reference to the base/trace option underlying the 2W configuration by assuming that either the D^{max} conjunct moves from the CS in (26a) or that the T-auxiliary moves into the CS and cliticises onto, or incorporates into, J^{min} .

- (26) [Ja smo i Mujo] otišli na pivo.
 I will.PL and M go.PRPL on beer
 'Mujo and I are going for a beer.'

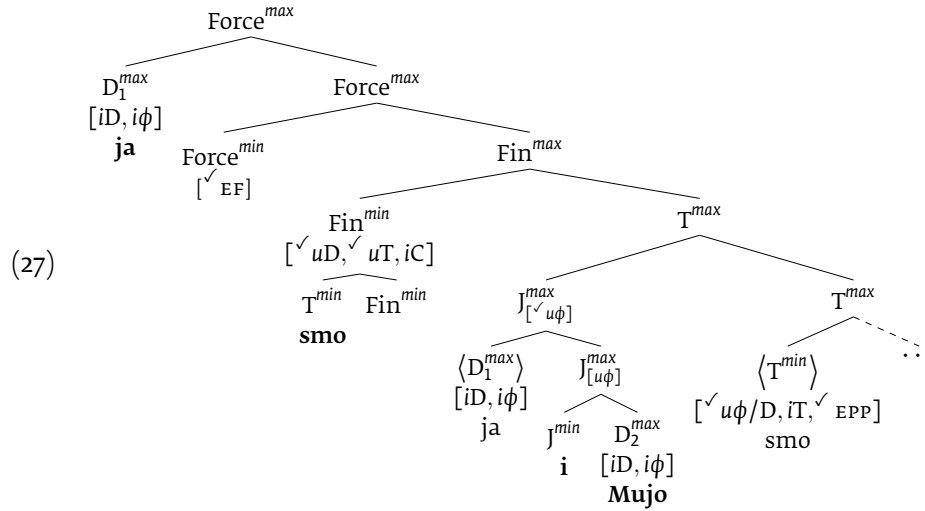
- a. D-MOVEMENT FROM THE CS:
 Ja₁ [t₁ smo i Mujo] otišli na pivo.
 I will.PL and M go.PRPL on beer
- b. AUX/T-MOVEMENT INTO THE CS:
 [Ja smo₁ i Mujo] t₁ otišli na pivo.
 I will.PL and M go.PRPL on beer

Let us start with the latter idea exemplified by (26b) involving the movement of Aux in T^{min} to J^{min} . While incorporation into the conjunction maker, for which we use the category J^{min} , is a well-attested phenomenon across old Indo-European languages,⁸ movement of a head (T^{min}) into its own specifier, i.e., J^{max} in $\text{Spec}(T^{max})$, is both anti-local⁹ and is ruled out by extension. The idea that a Probe and a Goal constitute two separate syntactic objects seems to be an axiomatic foundation of the Agree-based Minimalism we assume. Attraction, resulting from Agree, is, as Roberts (2012b: 397) succinctly notes, an irreflexive relation. Even if such strong evidence is suppressed, it remains untenable to motivate movement of T^{min} into J^{min} which by feature-absorption acquires the label [D], since (con)junction inherently lacks categorial features. Therefore, if the categorial label of J^{max} in $\text{SPEC}(T^{max})$ is [D], setting aside the anti-locality and extension issues, it is still untenable to motivate incorporation of T^{min} into what may essentially be D^{min} . Such a D/J^{min} object lacks neither the ϕ/D -features which T^{min} could (even more) locally check – hence any variant of A-movement is dispelled. It is also unnatural to ascribe the CS subject with any [EF] which could be checked by movement of T^{min} . Lastly, the formal feature specifications on T^{min} do not in any way constitute a proper subset of the features on D/J^{min} , hence the defectivity of T^{min} and its subsequent incorporation cannot be motivated.

By unsuccessfully exhausting the theoretical space that the first analysis of T-to-J movement would entail, we are led to abandon this view and turn to the second view.

The second analysis appeals to the \bar{A} -movement of the maximal D category *ja* ‘I’ from within the coordinate J^{max} to the clausal subject position, maintaining both T-raising and subject movement. This approach in fact parallels, and falls within, the well-observed pattern of Left Branch Condition (LBC) violations, aka Left Branch Extraction (LBE)

- 8 Such constructions derive from the well-known Wackernagel’s (1892) law and give rise to 2P effect. For an extensive overview of this phenomenon, see Mitrović (2014) and references therein.
- 9 For overwhelming evidence that movement of a head into its own specifier is anti-local, see Saito and Murasugi (1999); Abels (2003); Grohmann (2003); Doggett (2004); Bošković (2005); Boeckx (2007), among others.



Ignore temporarily the fact that this analysis rests on a violation of CSC. Once ignored, the question concerns the computational preference, or indeed availability, of the conjunct D^{max} for extraction. In this regard, we appeal to the A-over-A condition as formulated in Rackowski and Richards (2005) and applied in Roberts (2010).

What derives the 2W configuration is Rackowski and Richards's (2005) definition of the Closest available goal:

- (28) A goal α is the closest one to a given probe if there is no distinct goal β such that for some X (X a head or maximal projection), X c-commands α but does not c-command β . (Rackowski and Richards, 2005: 579)

4 NON-CONSTITUENT-FIRST AND XLBE

XLBE is problematic for the narrow-syntactic treatment of clitic. Then again, why is this even a problem?

Roberts (2010); Roberts (2012b) has convincingly demonstrated not only that an exclusively syntactic approach to cliticisation phenomena is possible but that such an account is elegantly couched within some primitive theorems of syntax. If all cliticisation phenomena find a natural explanation, then seems objectively odd, and subjectively disturbing, that one type of 2P effect should be afforded an extra-syntactic explanation. In fact, as it turns out, such an explanation is intractable. Hence, if narrow syntax cannot generate the XLBE string, which post-syntactic operations cannot derive (to which I turn), then the phenomenon of non-constituent-first (XLBE) constructions is even more intriguing.

What we aim to explain is the derivational nature of the strings such as the following, involving movement of a non-constituent.

- (29) U veliku on uđe sobu.
 in big.LOC he.NOM entered.AOR sobu.LOC
 ‘He went into a big room.’ (Bošković, 2005: 30, ex. 78)

As Bošković (2005: 30) notes, “under no approach to the internal structure of PP and the traditional NP do the preposition and the following adjective form a constituent to the exclusion of the noun modified by the adjective.” It is in this seeming fact that potentially devastates an exclusively syntactic approach to XLBE. To maintain such an approach, for reasons of generality just given, one must logically invalidate Bošković’s assertion. What we will develop is an approach that utilises the unrolling view of the spine that allows for a constituency structure of the preposition and the adjective. In concert with Roberts’s (2010) approach to defectivity, a perfectly syntactic view of XLBE will be demonstrated. Before proceeding, we review the failed analyses. In doing so, we follow Bošković (2005: 30ff.) and cite two syntactic approaches first, and then a post-syntactic analysis.

The first possible analysis is syntactic. One way of deriving constituency of P and A, is to posit remnant movement, as Franks and Progovac (1994) assume, namely movement of the NP to the edge of PP, followed by PP-fronting.

- (30) [_{PP} U veliku t_i]_j on uđe t_j sobu_i. (Bošković, 2005: 30, ex. 79)

Bošković (2005) gives evidence against the remnant PP analysis. If the phrasal movement of the noun is what the remnant PP analysis rests on, it is predicted that the noun would be able to move on to the clausal edge, which is not the case.

- (31) *Sobu on uđe u veliku.
 room he entered in big

The remnant PP analysis supposes PP extraction which precedes remnant fronting. Among other arguments, Bošković (2005) shows that, given the evidence from adjunct extraction (32), the analysis predicts movement of the noun *studenata* out of an adjunct which should be barred on independent grounds.

- (32) Zbog čijih je došao sudenata?
 because-of whose is arrived students
 ‘He arrived because of whose students?’ (Bošković, 2005: 32, ex. 84)

The second syntactic approach is that of Borsely and Jaworska (1988) who assume XLBE instantiates ordinary adjectival LBE. By invoking a restructuring operation, Borsely and Jaworska (1988) analyse XLBE as involving P-adjunction to the adjective. In a similar vein, both Corver (1992) and Franks and Progovac (1994) assume XLBE is derived from lowering, resulting in procliticisation of the preposition. Recall that the system we are assuming, most notably the LCA, prohibits rightward movement, *qua* lowering, and are both methodologically and conceptually reluctant to making reference to phonological operations if we are not forced to so independently. Note, however, that the preposition indeed shows phonological and prosodic evidence of proclisis (Talić, 2013, 2015). Our account should, therefore, provide means for these post-syntactic facts to obtain without positing post-syntactic movement. We return to this at the end of the section.

The third final possible alternative that Bošković (2005) entertains is to assume post-syntactic processes of *scattered deletion* or *copy and delete* (CD) that manipulates the linear configuration of the PP containing a modified noun and pronoun, in one segment, the P and the A strings in a moved constituent, while pronouncing the N in the base/trace position. This approach is sketched in (33).

- (33) [U veliku s**o**bu] on u**de [u-veliku sobu] (Bošković, 2005: 32, ex. 85)**

A serious impediment to the CD account is the fact that it cannot predict the elements that may and may not undergo ‘deletion’ since it is not the case that ‘anything’ goes, as long as it’s split. (See Bošković 2005 for more arguments against the CD account.)

- (34) * [Pravo u veliku s**o**bu] on u**de [pravo u-veliku sobu]
 straight in big he entered room**

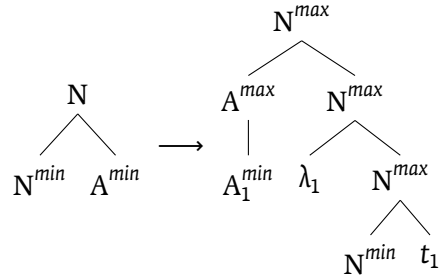
Now let us turn to explicating the proposal. Given that the structural spine is taken to enter the derivation in form of a head-complex, we take the following unfolding steps in the derivational course of a PP.¹⁰

Bošković’s (2005) phase-based account of LBE rests on Ser-Bo-Croatian being an NP-over-AP language (35), unlike English which is AP-over-NP (??). We take the sole derivational difference between the NP-over-AP versus AP-over-NP structure to lie in the resulting label.¹¹

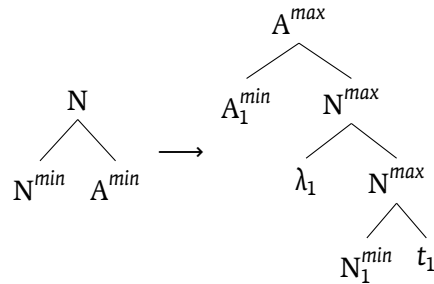
10 Since adjectives in Slavonic display morphological definiteness (via so-called short/long form), I take them to bear an IFF [IDEF].

11 For a conceptually parallel approach, see Donati and Cecchetto (2011).

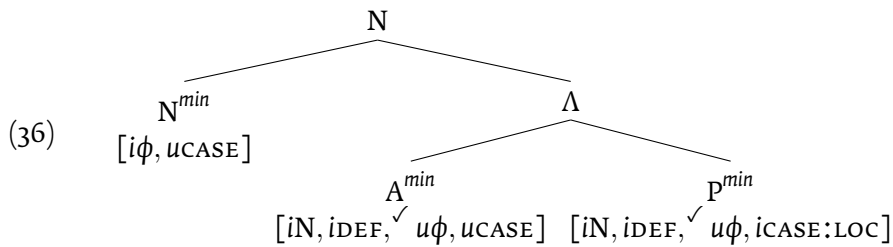
(35) a. NP-over-AP:



b. AP-over-NP:

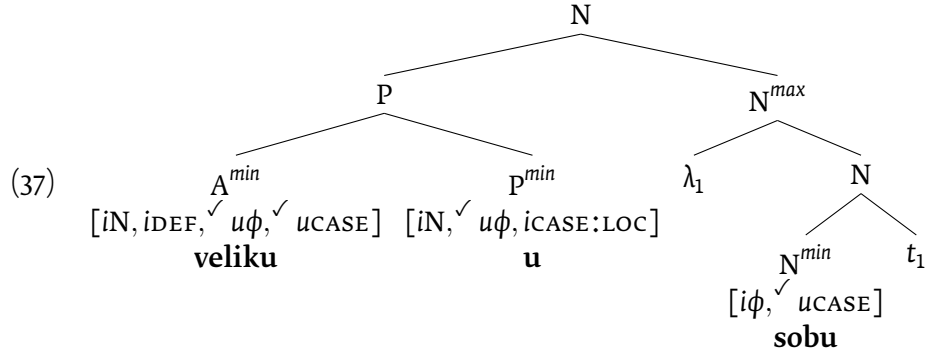


In what follows, we provide a step-wise derivation of the PP and capture the availability of XLBE to take place in line with the assumptions with which I started. At the onset, the c-commanding relations are in place for N^{min} to check the $[u\phi]$ probes on A^{min} and P^{min} .

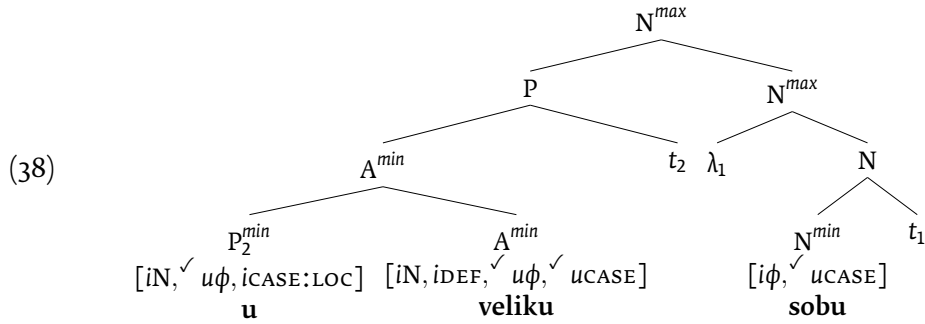


Following the tenets laid out in §2, while N^{min} projects, its complement excorporates, as shown in (37). Since APs in Ser-Bo-Croatian do not project a label, P projects upon excorporation (nothing hinges on this, as far as I can tell – cf. the adjunction possibility discussed below).

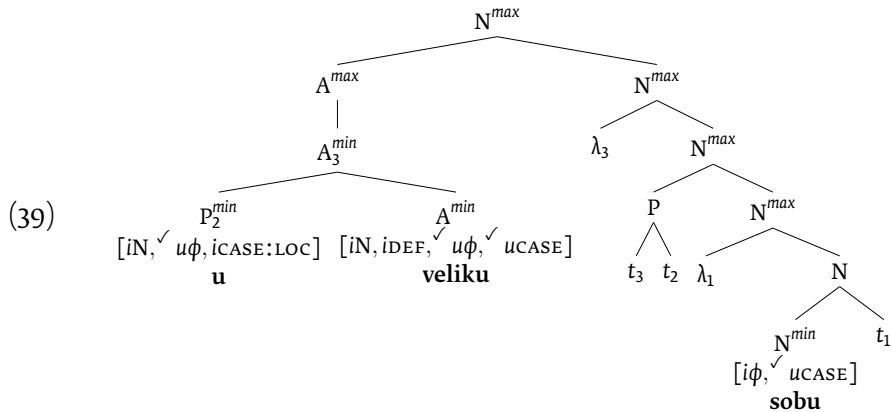
Upon raising, the case-features are checked as the c-commanding relation is established between the case-probe P and the case-seeking N^{min} and A^{min} .



By virtue of DEF feature on the A^{min} , P^{min} under sisterhood constitutes a defective goal which obtains incorporation.¹²



Upon final movement, the adjective is a maximal category via a mechanism of reprojection or Self Merge (we remain agnostic or rather apathetic with regards to this issue).

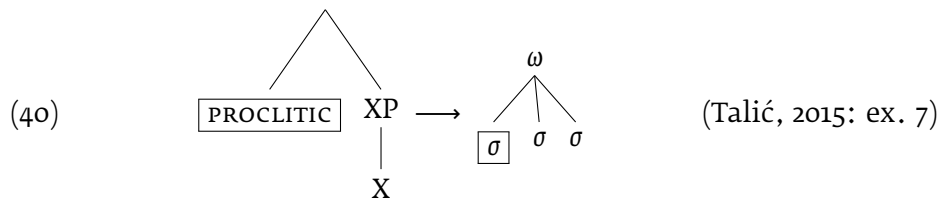


Note that even if we were to adopt a view according to which the A-adjunction is external to the unrolling of the nominal spine, we would

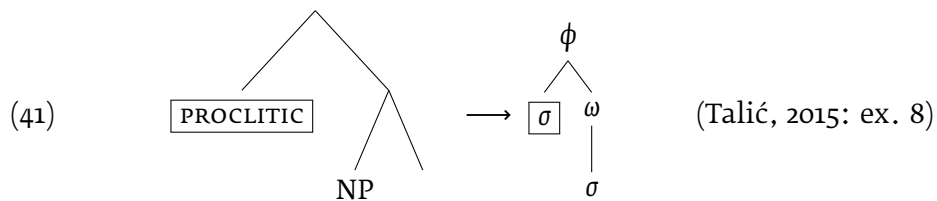
¹² The fact that XLBE material is in focus testifies to the definiteness of the AP. Unlike ordinary LBE, XLBE obligatorily displays a definiteness effect.

arrive at a critically similar configuration. Since A^{max} adjoining the N-complex would not project, due to the nature of the NP-over-AP status of Ser-Bo-Croatian, P^{min} , contained in $COMPL(N^{min})$, would excorporate to the root, *ceteris paribus*. A^{min} would have its $[u\phi]$ features checked via c-selection of N and its $[uCASE]$ feature valued presumably via the local chain $\langle N^{min}[uCASE:], N^{min}[iCASE:LOC] \rangle$. In case A^{min} is specified with a $[DEF]$ feature, the features constitute a superset of those on P^{min} which would, in absence of $[DEF]$ on A^{min} , otherwise excorporate to the root. This way, P is a defective goal that would undergo A-incorporation.

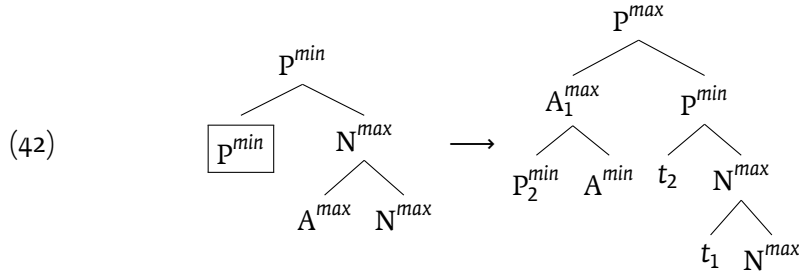
The preposition u has prosodic properties of a proclitic, as mentioned earlier. Due to this, Talić (2013, 2015) provides a morphosyntactic account that is predicated on the assumption that proclitics, like prefixes, incorporate into the prosodic word ω of their host (40).



However, the clitic cannot interact with accent when syntactically attached to a branching host. In this case, the latter forms a prosodic phrase (ϕ) to which the proclitic may only attach.



Therefore, for the correct prosody to obtain, the syntactic configuration in (40) is required. Since under no approach can we derive such base-generated constituency (recall the drawbacks), Talić (2015) assumes that such order are syntactically derived. In (42), we show her approach as demonstrated by her example 15 (ignoring the possibility of secondary AP and converting the phrase marker into BPS).



Such a syntactic approach assumes adjunct raising to SPEC(root), viz. $\langle A_1^{max}, t_1 \rangle$, and subsequent incorporation of the preposition. This approach is architecturally rather similar to the approach we developed with one crucial exception. The chain $\langle P_2^{min}, t_2 \rangle$ breaches the Anti-locality condition by moving the head into its own specifier.¹³ The author, however, adopts the lines of reasoning from Matushansky (2006), *int. al.* which are, on independent grounds, divorced from the system of Roberts (2010); Roberts (2012b) we are building on.

Also note that the relation between the prosodic constituency property and the availability of XLBE is not one of entailment. While the preposition *u* we have been citing in our data does have proclitic properties, being monosyllabic (its syllabic ω -weight: $\omega_\sigma(P^{min}) = 1$) there are other, prosodically non-simplex prepositions that feature in XLBE:

- (43) Prema velikoj je zgradi otišao.
 toward big.LOC is building.LOC went
 ‘He went towards a big building.’ ($\omega_\sigma(P^{min}) = 2$)
- (44) Povodom teških je uslova ipak uspio.
 on.account difficult.GEN is circumstances.GEN still succeeded
 ‘Despite difficult circumstances, he still succeeded.’ ($\omega_\sigma(P^{min}) = 3$)

Thus, independently of the prosodic mappings, the anti-local configuration in (42) should be, *ceteris paribus*, a standard derivation of Ser-Bo-Croatian PP grammar.

5 DISCUSSION & CONCLUSION

The analysis we provided derives from basic properties of phrase-structure building, coupled with the notion of Defective goals and a derivational onset as involving a head-complex (Shimada, 2007). As it turns out, XLBE is perfectly amenable to an exclusively syntactic account of its configuration, thanks to Roberts’s (2010) Defectivity.

¹³ See fn. 9.

REFERENCES

- Abels, K. (2003). *Successive Cyclicity, Anti-locality, and Adposition Stranding*. PhD thesis, University of Connecticut, Storrs.
- Boeckx, C. (2007). Some notes on bounding. *Language Research*, 43:35–52.
- Borsely, R. and Jaworska, E. (1988). A note on prepositions and case marking in Polish. *Linguistic Inquiry*, 19:685–691.
- Bošković, Ž. (2004). Clitic placement in South Slavic. *Journal of Slavic Linguistics*, 12:37–90.
- Bošković, Ž. (2005). On the locality of Left Branch Extraction and the structure of NP. *Studia Linguistica*, 59:1–45.
- Bošković, Ž. (2008). What will you have, DP or NP? *Proceedings of NELS*, 37.
- Bošković, Ž. (2009). On Leo Tolstoy, its structure, case, left-branch extraction, and prosodic inversion. In Franks, S., Chidambaram, V., , and Joseph, B., editors, *Linguist's Linguist: Studies in South Slavic Linguistics in Honor of E. Wayles Browne*, pages 99–122. Bloomington, IN: Slavica.
- Chomsky, N. (2001). Derivation by phase. In Kenstowicz, M., editor, *Ken Hale: A Life in Language*, pages 1–52. Cambridge, MA: MIT Press.
- Chomsky, N. (2013). Problems of projection. *Lingua*, 130:33–49.
- Corver, N. (1992). Left branch extractions. In *Proceedings of NELS 22*, pages 67–84.
- Doggett, T. B. (2004). *All Things Being Unequal: Locality in Movement*. PhD thesis, MIT.
- Donati, C. and Cecchetto, C. (2011). Relabeling heads: A unified account for relativization structures. *Linguistic Inquiry*, 42(4):519–560.
- Franks, S. and Progovac, L. (1994). On the placement of Serbo-Croatian clitics. *Indiana Linguistic Studies*, 7:69–78.
- Grohmann, K. K. (2003). Successive cyclicity under (anti-)local considerations. *Syntax*, 6:260–312.
- Halpern, A. L. (1992). *Topics in the Placement and Morphology of Clitics*. PhD thesis, Stanford University.
- Halpern, A. L. (1995). *On the Placement and Morphology of Clitics*. Stanford, CA: CSLI.

- Kayne, R. (1994). *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
- Matushansky, O. (2006). Head movement in linguistic theory. *Linguistic Inquiry*, 37(1):69–109.
- Mitrović, M. (2013). Configurational change in Indo-European coordinate construction. In Martins, A. M. and Cardoso, A., editors, *Word order change*. Oxford: Oxford University Press. In press.
- Mitrović, M. (2014). *Morphosyntactic atoms of propositional logic: a philo-logical programme*. PhD thesis, University of Cambridge.
- Rackowski, A. and Richards, N. (2005). Phase edge and extraction: a Tagalog case study. *Linguistic Inquiry*, 36(4):565–599.
- Roberts, I. (2010). *Agreement and Head Movement: Clitics, Incorporation, and Defective Goals*. Linguistic Inquiry Monographs. Cambridge, MA: MIT Press.
- Roberts, C. (2012a). Information structure in discourse: Towards an integrated formal theory of pragmatics. *Semantics & Pragmatics*, 5(6):1–69.
- Roberts, I. (2012b). Phases, head-movement, and second-position effects. In Gallego, A. J., editor, *Phases: Developing the Framework*, pages 385–440. Walter de Gruyter.
- Ross, J. R. (1967). *Constraints on variables in syntax*. PhD thesis, Massachusetts Institute of Technology.
- Saito, M. and Murasugi, K. (1999). Subject predication within IP and DP. In Johnson, K. and Roberts, I., editors, *Beyond Principles and Parameters: Essays in Memory of Osvaldo Jaeggli*, pages 167–188. Dordrecht: Kluwer.
- Shimada, J. (2007). *Head Movement, Binding Theory, and Phrase Structure*. Ms. MIT.
- Talić, A. (2013). Extraordinary complement extraction: PP-complements and inherently case-marked complements. *Studies in Polish Linguistics*, 8:127–150.
- Talić, A. (2015). Syntactic mobility of the host and accent shift to proclitics. In Bui, T. and Özyıldız, D., editors, *Proceedings of NELS 45*.
- Thurneysen, R. (2003). *A Grammar of Old Irish*. Dublin: Dublin Institute for Advanced Studies.
- Wackernagel, J. (1892). Über ein Gesetz der indo-germanischen Wortstellung. *Indogermanische Forschungen*, 1:333–436.