

Extraordinary Complement Extraction

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1 Introduction

In the theory of phases, it has been recently argued that the phasehood of an element is affected by the syntactic context it occurs in (the *contextual* or *dynamic* approach).¹ Bošković (forthcoming_A) argues that the highest phrase within the extended projection of every major lexical category functions as a phase, which means Vs, Ns, Ps, and As all project phases. Languages without articles have been argued to lack DP (e.g., Corver 1992; Zlatić 1997; Bošković 2012a). As Bošković notes, in the contextual approach to phases, this means that the phasal status of NP differs in languages with articles and languages without articles, i.e., NP is not a phase in English due to the presence of DP in the same extended projection, but it is a phase in Serbo-Croatian (SC) where DP is absent. This difference has empirical consequences for extraction out of Traditional Noun Phrases (TNP²) in different languages. In particular, given the conflicting requirements imposed by the *Phase-Impenetrability Condition* (PIC) (Chomsky 2000; 2001) and *anti-locality* (e.g., Bošković 1994; Abels 2003a, among others), the ban on movement that is too short, complements of phase heads are immobile. Consequently, English allows extraction of nominal complements since NP is not a phase, but SC, where NP is a phase, disallows extraction of NP-complements of N, unless they receive inherent case, which is explained by assuming more structure in these NPs (see Section 2).

This paper addresses a serious problem for this analysis regarding movement of PP-complements of Ns and As in SC: they are expected to be immobile in this system, but I show that they can undergo movement. As I will argue, this problem can be resolved by employing a mechanism used for certain cases of left-branch extraction (LBE). I will show that the proposed analysis receives independent support from certain accent shifts. I start by laying out Bošković's phasehood approach, as applied to TNPs and traditional adjective phrases (TAPs), focusing on N- and A-complement extraction in Section 2. Section 3 reveals problems for Bošković (forthcoming_A). The proposed account of the problematic extractions in SC is given in Section 4.

2 Contextual Approach to Phases (Bošković forthcoming_{A/B})

Under the standard approach, phases are CPs, vPs (Chomsky 2000; 2001) and DPs (Svenonius 2004; Hiraiwa 2005; Bošković 2005; Chomsky 2008; among others). Originally, it was assumed that if a phrase is a phase, it always functions as a phase. Many have recently argued phases to be context sensitive, i.e., the phasehood of a projection depends on the syntactic context in which it occurs (Bobaljik and Wurmbrand 2005; Bošković 2005, forthcoming_A; Gallego and Uriagereka 2007; den Dikken 2007; Despić 2011, 2013; M. Takahashi 2011). Bošković (forthcoming_A) in particular maintains that the highest phrase in the extended projection of a lexical category functions as a phase. The amount of functional structure can vary across languages (as well as within a single language), which can yield superficial differences in phasehood. However, according to Bošković, phasehood is not subject to variation. What can vary across languages (and different structures within a single language) is the amount of structure projected within the extended domain of a lexical category, but the phase is always (and only) the highest projection. The crucial evidence for this approach comes from an interaction of the PIC (Chomsky 2000; 2001) and anti-locality, i.e., the ban on movement that is too short (Bošković 1994, 1997, 2005; Grohmann 2003 (who originally gave this term); Abels 2003a; among many others). Regarding anti-locality, Bošković argues that movement must cross at least one full phrase (not just a segment). Abels (2003a) observes that the PIC and anti-locality prevent phasal complements from undergoing movement due to the conflicting requirements of these two mechanisms: the PIC requires phasal complements to move to the Spec of the phase, but since this movement does not cross a full maximal projection, it is ruled out by anti-locality. Abels demonstrates that phasal complements are in-

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¹Details of contextual/dynamic approaches offered by various authors are different, so I will refer to this particular version as "the contextual approach" throughout the paper for ease of exposition.

²I will use this term when there is no need to commit to the categorial status of noun phrases, i.e., functional structure that may be present above NP. Parallel to this, "TAP" will be used for adjective phrases.

deed immobile. One argument for this effect comes from the impossibility of extraction of an IP complement of C, a phasal head:

- (1) a. $*[_{CP} IP_i [C^o C \ t_i]]$ [Abels 2003a]
 b. $*[_{IP} \text{Anything will happen}]_i$, nobody believes $[_{CP} t_i [C^o \text{that } t_i]]$.

Based on Abels's generalization, Bošković (forthcoming_A) provides evidence for the contextual approach to phases regarding NP-complements in TNPs and TAPs. It is argued that there is parametric difference between languages with articles and the ones without articles in that the former have a DP projection, while the latter lack it (Bošković 2008, 2012a). In the above contextual approach to phases, this leads to an immediate conclusion that NP is not a phase in DP-languages, while it is a phase in NP-languages, being the highest projection in the nominal domain. Keeping in mind Abels's generalization, the consequences of this claim are the following: (i) N-complements are extractable in DP-, but not in NP-languages (see also Bošković 2012a for further differences between the two language types); (ii) LBE of adjectives can only be allowed in NP-languages; (iii) NP-adjuncts are only extractable in NP-languages (Bošković forthcoming_B). In DP-languages, the PIC requires APs and adjunct PPs, which Bošković assumes are NP-adjoined, to move to SpecDP, but this movement crosses only a segment of a phrase and is ruled out by anti-locality. Given that DP is missing in NP-languages, the problem does not arise in these languages because NP-adjoined elements originate at the edge of the phase. The examples in (2) show that this is borne out:³ N-complements can extract in English (2a), but not in SC (2b). In contrast, LBE is disallowed in English (2c), and allowed in SC (2d) (phases are given in bold).

- (2) a. Of whom do government employees see $[_{DP} [_{NP} \text{pictures } t_i]]$ every day?
 b. $?*Ovog \ studenta_i \ sam \ pronašla \ [_{NP} \text{slike } t_i]$
 this.GEN student.GEN am found pictures.ACC
 ‘Of this student I found pictures.’
 c. $*Beautiful_i$, he saw $[_{DP} [_{NP} t_i [_{NP} \text{houses}]]]$.
 d. $Lijepe_i \ je \ vidio \ [_{NP} t_i [_{NP} \text{kuće}]]$.
 beautiful.ACC is seen houses.ACC
 ‘Beautiful houses, he saw.’ [Bošković 2005, forthcoming_B]

Furthermore, Bošković shows that SC disallows deep LBE out of NPs that function as nominal complements (3). The wh-adjective in (3) is at the edge of the lower NP, but there is another phase right above it, projected by the *N prijatelja* ‘friend.ACC’, which blocks its movement via the PIC/anti-locality interaction.

- (3) $*Čije_i \ je \ on \ vidio \ [_{NP1} \text{prijatelja} \ [_{NP2} t_i [_{NP2} \text{majke}]]]$?
 whose.GEN is he seen friend.ACC mother.GEN
 ‘Whose mother did he see a friend of?’
 cf. $Čiju_i \ je \ on \ vidio \ [_{NP} t_i [_{NP} \text{majku}]]$?
 whose.ACC is he seen mother.ACC [Bošković forthcoming_A]

Note that under the contextual approach, the phasal status of a category changes if more structure is added within the same domain. Bošković (forthcoming_A) and Despić (2013) argue that QP is projected above NP in SC by higher numerals.⁴ This QP, rather than NP, is then a phase in such contexts. As a result, N-complement extraction improves when a numeral is present (4b). Since the higher NP is not a phase here, the moving complement only has to stop in SpecQP: this movement crosses a full maximal projection, satisfying anti-locality.

- (4) a. $?*Ovih \ studenata_i \ sam \ vidjela \ [_{NP} \text{sliku } t_i]$.
 these.GEN students.GEN am seen picture.ACC

³See Bošković (forthcoming_A) for adjunct extraction.

⁴See Bošković (forthcoming_A) and Despić (2013) for evidence for this effect based on binding properties of possessives.

- b. ?Ovih studenata_i sam vidjela [_{QP} pet [_{NP} slika t_i]].
 these.GEN students.GEN am seen five pictures.GEN
 ‘I have seen five pictures of these students.’

We have seen that genitive N-complements and elements adjoined to them (APs and PPs) cannot be extracted out of an NP in SC.⁵ However, some SC Ns and As assign lexically specified inherent cases to their complements.

- (5) a. Mrzio je prijetnje zatvorom.
 hated is threats prison.INST
 ‘He hated threats with prison.’
 b. zahvalan studentima
 grateful students.DAT
 ‘grateful to students’

In these contexts, complement extraction (6a,c) and deep LBE (6b,d) are possible.

- (6) a. Čime_i ga je [prijetnja t_i] uplašila? [Zlatić 1994]
 what.INSTR him is threat scared
 ‘The threat of what scared him?’
 b. ?Kakvom_i ga je uplašila [prijetnja [t_i smrću]]?
 what-kind-of.INSTR him is scared threat.ACC death.INSTR
 ‘Of what kind of death did a threat scare him?’
 c. ?Studentima_i je on [lojalan / zahvalan t_i].
 students.DAT is he loyal / grateful
 d. Njegovim_i je on [lojalan / zahvalan [t_i studentima]].
 his.DAT is he loyal / grateful students.DAT

Bošković (forthcoming_B) argues that there is an additional layer of structure between inherent-case assigned NP-complements and NP/AP above it, which enables movement steps in (6) to obey the PIC, without violating anti-locality. The structures proposed for these situations are the following:

- (7) a. [_{NP1} threat [_{FP} F [_{NP2} cruel [_{NP2} death]]]]
 b. [_{AP} grateful [_{FP} F [_{NP} his [_{NP} students]]]]

Regarding the nature of FP, Bošković (forthcoming_B) appeals to the frequently adopted assumption that a preposition is involved in inherent case assignment. Following this view, he suggests that F is a preposition-like element similar to English *of*.

Though appealing for its simplicity and capacity to unify a large set of data from parametrically different languages, I will show that this system faces several serious problems.

3 Problems

3.1 PP-Complements of Nouns and Adjectives

PP-complements of Ns and As in SC represent an immediate issue for Bošković’s system because they can extract, which seems to be an instance of phasal complement extraction, violating the PIC or anti-locality.

- (8) a. ?Za koji problem_i si otkrio rješenja t_i?
 to which problem are discovered solutions
 ‘To which problem did you discover solutions?’
 b. Na koga_i je Ivan ponosan t_i?
 of whom is Ivan proud
 ‘Of whom is Ivan proud?’

⁵Genitive is the nominal structural case — the counterpart of verbal accusative.

With respect to (8a), we have seen above that SC Ns are phasal heads, so their complements should not be able to extract (see (2)), and that N-complement extraction is fine in English because the presence of the DP layer makes enough room for the complement to extract without violating PIC/anti-locality. (8b) also turns out to be problematic for this system because there is independent evidence that predicative TAPs also differ structurally in SC and English, being more complex in English than in SC. The evidence comes from a cross-linguistic variation in Adv-extraction possibilities illustrated in (9a–b) below.⁶ AP-modifiers are not extractable in English (9a), unlike in SC (9b). Assuming that they originate as AP-adjoined, on a par with NP-adjoined adjectives, we get a very simple account of the difference in (9) if we posit that English TAPs have more structure than SC TAPs (9c–d).

- (9) a. *Terribly_i he was t_i tired.
 b. Užasno_i je bio t_i umoran.
 terribly is been tired
 c. [XP [AP terribly [AP tired]]]
 d. [AP užasno [AP umoran]]

What blocks AdvP-movement in (9a) is the same mechanism that blocks LBE in English — the PIC/anti-locality conflict. The issue does not arise in SC, since the AP is the highest projection (= phase) and the AdvP originates at its edge. Thus, Bošković's system would correctly predict that A-complement extraction is allowed in English (10), but it would wrongly rule out this extraction in SC (8b).

- (10) Of John_i, he is proud t_i.

SC lacks functional structure above NP and AP. Thus, NP and AP are phases in SC and PPs in (8) should not be extractable (cf. (2b)). Notice also that we cannot assume that (8) involves additional structure associated with inherent case, since, unlike NPs, PPs do not receive case in the first place.

To deal with this issue, Bošković (forthcoming_B) suggests that PPs are never nominal complements in SC; in particular, he argues that SC nouns may not be able to take PP-complements since they can take true NP-complements. SC adjectives also take NP-complements, so the same would apply to APs. Thus, all SC PPs in his view are treated as adjuncts. This would cover the facts in SC because these adjuncts would be at the edge of NP or AP, with no higher projection that would block their movement. However, this cannot be extended to English — if all English PPs were adjuncts, no PP would ever be extractable in this language, since the DP layer would block its movement (PIC/anti-locality). (11) shows that this is not the case.

- (11) ?To which problem_i did you discover solutions t_i? [Bošković forthcoming_B]

Importantly, this PP-complement extraction in English contrasts with PP-adjunct extraction, which is disallowed (Huang 1982; Chomsky 1986; Stowell 1989; Lasnik and Saito 1992; Culicover and Rochemont 1992; Bošković, forthcoming_B). Thus, we need to keep the complement/adjunct distinction of English PPs.

- (12) *From which city_i did you meet girls t_i.

In sum, with respect to PP-complements of Ns and As, Bošković's approach has several problems. First, why would these semantically identical PPs be complements in one language (11) and adjuncts in the other (8)? Second, even within one language (SC), there appears to be a difference between nouns and verbs taking complements. Namely, nouns that take NP-complements cannot take PP-complements, but verbs, which can also take NP-complements, are capable of taking PP-complements as well.

It would obviously be more appealing to treat SC and English in the same way, which means that both languages have PP-adjuncts and PP-complements, and that the PPs in both (8) and (11) are complements. The fact that PP-complements are extractable in English and that adjunct extraction is allowed in SC but disallowed in English follows from the contextual approach to phases (see the discussion above). However, we still need to account for PP-complement extraction out of SC NPs and APs, which is ruled out by the system.

⁶Among the languages I have tested so far, German, Dutch, Spanish, and BP pattern with English in this respect, while Polish, Slovenian, Russian, Bulgarian, and Icelandic pattern with SC.

3.2 Problems with FP: Domain of FP and F-Stranding

Concerning FP in (7a–c), it is not really clear which domain it belongs to. There are three logical options, none of which would work in the system: (i) FP in the extended projection of the lower NP, (ii) FP in the domain of the higher NP or AP, or (iii) FP as a separate domain.

The first option is clearly problematic. It is crucial in this system that FP is not part of the extended projection of the lower NP because it would lead to undergeneration. If FP were part of the domain of the lower NP, it would be a phase, the lower NP would be a complement of a phasal head (F), and we would wrongly predict that it could not move. The second option would be rather strange: functional projections in the domain of a lexical category X are normally introduced after X, i.e., they are higher than X in the structure. What remains is the third option — that the FP is a real PP (headed by a null preposition), which does not belong to either the domain of the lower or the higher NP. However, this option also does not solve the issue. Since the highest projection in the domain of any lexical category (including PPs) is a phase under the contextual approach to phases (Bošković forthcoming_A), this FP will then also be a phase, which will yield the same effect as the first option.

Bošković (forthcoming_B) points out a related issue with the claim that F is a preposition. In (6a,c,e) the F must be stranded. This represents a problem for Bošković (forthcoming_A) because SC otherwise does not allow P-stranding.

- (13) *Čemu_i pričaš o t_i?
 what talk about

The following section briefly sketches the mechanism that can be extended to unify a certain type of LBE with the problematic PP-complement extraction in SC, and to remove the problem of the identity of FP.

4 The Analysis

4.1 Background Mechanism

Recall that SC allows AP LBE (2d). Such extraction can be allowed only in languages that lack articles, i.e., where DP is missing (Corver 1992; Chierchia 1998; Bošković 2012a). Furthermore, when an NP modified by an adjective is located within a PP in SC, the “P+AP” complex can be extracted, as in (14) below. Bošković refers to this kind of LBE as “extraordinary LBE” because it appears to involve non-constituent movement since P and AP do not form a constituent in their base positions.

- (14) U veliku_i on uđe t_i sobu.
 in big he entered room
 ‘He entered the big room.’

The account adopted in Bošković (2005) dates back to Borsley and Jaworska (1988) and it involves ordinary LBE, with the adjective carrying the preposition that adjoins to it (see also Corver 1992; Franks and Progovac 1994; Bošković 2005).⁷ Below I illustrate some of the relevant facts: (i) it is possible to extract “P+AP” out of an adjunct PP (15a); (ii) extraordinary LBE has to affect the intensifier together with the adjective (15b); (iii) deep extraordinary LBE out of a complement of N is not permitted (15c).

- (15) a. Zbog čijih je došao studenata? [Bošković 2005]
 because-of whose is arrived students
 ‘He arrived because of whose students?’
 b. U izuzetno_i veliku on uđe t_i sobu.
 in extremely big he entered room
 cf. *U veliku_i on uđe t_i izuzetno t_i sobu.

⁷See Bošković (2005) for arguments against alternative analyses: remnant movement (Franks and Progovac 1994; Abels 2003b) and scattered-deletion analysis (Ćavar and Fanselow 2000), which I put aside here for space reasons.

- c. *O kakvim_i je Jovan pročitao članak t_i studentima?
 About what-kind-of.INSTR is Jovan read article.ACC students.INSTR
 cf. O kakvim studentima_i je Jovan pročitao članak t_i?

(15b–c) show that this kind of extraction is parallel to ordinary LBE. It is important to note however that whenever extraordinary LBE is possible, ordinary LBE is not, i.e., it is impossible to only extract an AP out of an NP-complement of P (16a). Bošković (2005) ties this to the impossibility of P-stranding in SC (16b), stating the ban as in (17).

- (16) a. *Veliku_i on uđe u t_i sobu. b. *Sobu_i on uđe u t_i (juče).
 big he entered in room room he entered in yesterday
 (17) Movement out of a PP is possible only if the PP is not headed by a lexical element.

Assuming that SC PP is a phase, both (16a) and (16b) are accounted for: P-stranding is impossible since it would involve phasal complement extraction (cf. (1) and (2b)), and ordinary LBE is impossible since moving an element adjoined to a phasal complement also violates PIC/anti-locality (cf. (2c) and (3a)). Why can AP move if P moves as well? Bošković uses rescue by PF-deletion to account for this.

Since Ross 1969 it has been known that ellipsis (PF-deletion) ameliorates island violations (18).

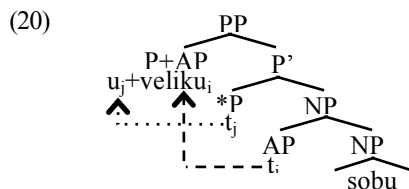
- (18) a. *Ben will be mad if Abby talks to one of the teachers, but she couldn't remember [which (of the teachers)]_i Ben will be mad [if she talks to t_i]
 b. Ben will be mad if Abby talks to one of the teachers, but she couldn't remember [which (of the teachers)]_i ~~Ben will be mad [if she talks to t_i]~~ [Merchant 2001]

Chomsky (1972) formalizes the ellipsis amelioration effect as follows: a * (a originally #) is assigned to an island once a moving element crosses it. If the *-marked category remains in the final structure, the derivation crashes, but if it gets deleted before it is pronounced, the derivation is saved. Applying this to (18), a * is assigned to the island after the wh-movement takes place out of it, but it is removed by ellipsis, which rescues the derivation. Bošković (2011) extends this effect to copy-deletion, deducing that way Chomsky's (1995, 2001) generalization that traces do not count as interveners for relativized minimality effects: in such structures the *-marked intervener is deleted in PF via copy-deletion. Furthermore, Bošković argues that a * is assigned to the *head* of the island/barrier rather than to the whole island when a violation occurs. Hence, if the head of the island moves, its base-generated copy is deleted together with the *, and the derivation is rescued. Evidence for this comes from Galician D-incorporation facts noted by Uriagereka (1988, 1996):

- (19) a. *De quén_i liches os mellores poemas de amigo t_i?
 of whom read (you) **the** best poems of friend
 b. (?)De quén_i liche-**los**_i [_{DP} [_D t_i [mellores poemas de amigo t_i]]]
 of whom read-(you)-**the** best poems of friend
 'Who did you read the best poems of friend by?'

Wh-movement from DPs headed by the definite article is disallowed in Galician (19a), suggesting that they are islands for movement. However, when the article heading the DP incorporates into the verb, this wh-movement becomes possible (19b). After the wh-element moves, a * is placed on D. In (19a), the * is not removed in PF because the article is pronounced in D, leading to a crash. In (19b) the article also moves, and its copy in D is deleted in PF, removing the * as well. If the * were placed on the whole DP after wh-movement, it would still be present in PF, even after the deletion of the D-head. In contrast, if the * is placed on the D-head after wh-movement, then it is deleted under copy-deletion.

Bošković (2012b) accounts for SC extraordinary LBE (14) in the same way. This extraction causes two anti-locality violations: AP-movement from the NP-adjoined position to SpecPP, and P-movement to the element in SpecPP (20). Therefore, a * is placed on the head P. Since the trace of P, i.e., it is deleted in PF, the derivation is rescued.

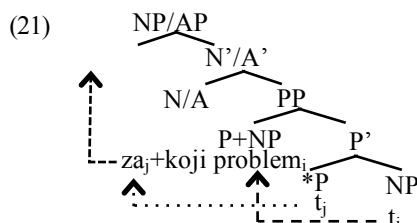


Note that (16a) is ruled out because the * caused by AP movement to SpecPP remains in the structure, the starred PP head not undergoing PF deletion. The system thus accounts for why extraordinary LBE, but not ordinary LBE, is possible in this context. Having introduced the background mechanism for the analysis I will propose for PP-complement extraction, we can now return to the problems noted above.

4.2 “PP-Complement Movement” is NP-Movement in Disguise, Not PP-Movement

Let us go back to the problematic extractions in (8). As discussed above, PPs in (8) are complements of N and A (phase heads). This is problematic because these complements should be trapped in their base positions by the PIC and anti-locality due to the lack of functional structure above NP and AP in SC, but (8) shows that this does not happen.

As previously shown, certain locality violations can be ameliorated by PF-deletion. An example of this effect was illustrated above with extraordinary LBE. To deal with the problematic PP-complement extraction in (8), I propose that it can be analyzed in a similar fashion as extraordinary LBE ((14) and (20)). Recall that PPs in SC are phases, which accounts for the fact that their complements cannot extract (16b). Regarding the problematic PP-complement movement, I argue that this movement is actually not movement of the whole PP, but rather, movement of the NP complement of P, and that the preposition adjoins to the NP on its way up, similar to the above account of extraordinary LBE (20). The NP-complement first moves to SpecPP, violating anti-locality, so a * is assigned to the head of the phase in which the violation occurred (*P). The preposition moves to the NP, adjoining to its leftmost element,⁸ and subsequently, the NP moves out of SpecPP to the Spec of the next phase, NP or AP in (8). From there, it is able to move through phasal edges all the way up. Only the first step violates anti-locality, the subsequent ones are perfectly legit. Since the *-marked element is deleted in PF for independent reasons (i.e., this copy of P is a trace), the derivation does not crash. The initial steps of this derivation are shown in the diagram below.



Therefore, extraordinary LBE in (14) and (20) and “extraordinary complement extraction” in (8) and (21) are in essence the same phenomenon.

4.3 Evidence from Accent Shift

The analysis of extraordinary LBE and complement extraction above involves AP or NP moving to SpecPP and P subsequently attaching to it. Independent evidence for these steps comes from accent shifts that occur in Bosnian.⁹ This language is characterized by a pitch accent, and the pitch contour can be either falling or rising on both long and short vowels. Proclitics, including prepositions, can take over a falling accent from the first syllable of the host (Ridanović and Aljović 2009).¹⁰ In addition to phonological constraints on this shift, which I will put aside here, there are also syntactic requirements that

⁸This could be an instance of head-to-XP adjunction (T. Takahashi 2001; Matushansky 2006; Vincente 2007), or P-incorporation into the left-most head of the phrase moved into SpecPP.

⁹The variant of SC spoken in Bosnia and Herzegovina.

¹⁰See Ridanović and Aljović (2009) for a more detailed description of this phenomenon. Note that this accent shift is optional, and not all speakers have it.

need to be met. A preposition can take over the accent from a following noun (22), or from an adjective, but only when one adjective modifies the noun, not if two adjectives modify it. Compare (23a) and (23b).¹¹

- (22) u kùći → **ú**_kući 'in the house'
 (23) a. u nòvoj kùći → **ú**_novoj kući 'in the new house'
 b. u nòvoj vèlikoj kùći → ***ú**_novoj vèlikoj kući 'in the new big house'

In (23b) both adjectives are descriptive and the accent shift is degraded. Significantly, the shift in the context of two adjectives improves if the adjectives do not belong to the same class of adjectives. This is illustrated by (24), where a descriptive adjective is followed by a possessive adjective (possessives are morphologically and syntactically adjectives in SC, see Zlatić 1997; Bošković 2005; Despić 2011).

- (24) Pojavio se **ú**_novom bratovom kaputu.
 appeared SE in new brother's coat
 'He showed up in his brother's new coat.'

What has not been observed before is that this behavior of accent shift patterns very closely with allowed and disallowed contexts for LBE in SC. SC allows LBE (see (2d) above), but LBE is impossible when two adjectives of the same type modify the same NP (25a). However, this extraction also improves if the adjectives belong to different classes (25b) (Bošković 2005).

- (25) a. *?Staru je vidio oronulu kuću.
 old is seen dilapidated house
 b. Novi je obukao bratov kaput.
 new is put-on brother's coat
 'He put on his brother's new coat.'

There is actually variation among speakers regarding the acceptability of LBE in (25b). Crucially, speakers who disallow (25b) also disallow accent shift in (24).

Based on the data in (22)–(25), we can formulate the following generalization:

- (26) A proclitic (preposition) can take over the accent from its host only if the host is allowed to move independently.

The current analysis structurally captures the correlation between accent shift and the mobility of the relevant element. I suggest that the host and P must be in the same Spell-out domain (SOD) for P to take over the accent. In the base positions, P and AP (NP) in (22)–(24) belong to different SODs. The contrast between (23b) and (24) shows that AP must move for the shift to happen, which immediately follows from the analyses of (14) and (8) given above, where it was argued that Ps incorporate into APs and NPs moved to SpecPP. The accent shift data in fact provide strong independent evidence for the current analysis. (23b) is also evidence for the raising analysis of P-incorporation adopted above (where the P moves to the element in SpecPP), and against the lowering analysis (where the P lowers to the element following it). If the Ps were able to lower to their hosts, accent should also shift in (23b), since the P should be able to lower to the SOD of the host, but this does not happen. On the other hand, the raising analysis captures the connection between adjective mobility and accent shift.

4.4 Inherent Case Assigning FPs Are PPs

The P-complement extraction analysis developed above can also resolve the issues noted earlier regarding inherent case contexts. Recall that SC Ns and As can take NP complements to which they assign inherent (non-genitive) case, and that these complements can extract (6), in contrast to genitive-marked N-complements (2). Bošković (forthcoming_B) posits an additional FP as in (7a–b), but as pointed out above he

¹¹The low line will be used [] to connect the accented clitic with its de-accented host; the acute accent mark ['] is used for the rising pitch contour, and the grave accent mark [˘] is used for the falling one. The relevant vowels are given in bold.

remains unclear about the nature and the domain of this projection. It is often assumed that a null preposition is responsible for inherent case assignment, and Bošković hints that F in (7) is a preposition. However, although quite intuitive, this assumption is rather problematic in his system: if FP were indeed a PP, it would be a phase on its own, and should still block extraction (recall that SC disallows P-stranding). This in fact seems to be the only reason why Bošković does not consider this FP to be a PP.

Under the current analysis of P-complement extraction, we can easily resolve the problem and in fact consider FP to be a PP headed by a preposition, which happens to be null. This assumption makes the example (6a) parallel to the ones with P-complement extraction discussed above, and can be dealt with in exactly the same manner. FP is a separate phase, which is not part of either the lower or the higher NP. The moving NP in inherent case contexts moves to SpecFP (SpecPP), parallel to the NP-movement in (21) above. This movement violates anti-locality and a * is placed on F. The null preposition cliticizes to the moved NP, and finally the NP with the preposition incorporated into it moves out of the FP. The anti-locality violation is voided in the same way as with overt Ps, given that the copy of F with the * in the base position (trace) is deleted in PF. This resolves the problem of the identity of the FP, since it is a real PP under this analysis. Furthermore, the issue of P-stranding disappears, since the P moves along with the NP-complement.

5 Conclusion

I have argued that complements of phase heads cannot extract unless the head of the phase also moves and provided an account of a serious problem for Bošković's (forthcoming_A) phasal system and Abels's (2003a) generalization that phasal complements are immobile concerning apparent extraction of PP-complements of Ns and As in SC, phasal heads in the language. The idea is that PP-complement movement here is just an illusion; these complements are in fact immobile. I related the apparent phasal complement extraction to an independent mechanism that can be extended to it: parallel to extraordinary LBE where P moves to the moving AP, there is also extraordinary complement extraction, i.e., it seems that the PP moves, but what moves is in fact the NP-complement of P, carrying along the incorporated preposition (= proclitic). Independent evidence for P-incorporation comes from accent shifts that occur when P and its host are pronounced in the same Spell-Out domain. Issues raised by FP, an additional projection in inherent case assignment contexts (the identity and the domain of FP, as well as F-stranding), are also removed since FP is a PP under the current analysis. Bošković hints that F is a preposition-like element, being unable to claim that it is a full preposition. Under the analysis developed here, we can claim that F is indeed a preposition and treat it in the same way as overt prepositions. This we cover the facts about the problematic PP-extractions, remove problems regarding FP in inherent case contexts, but we also unify three intuitively very similar phenomena: extraordinary LBE, apparent PP-complement extraction (= extraordinary complement extraction), and the extraction of inherently case-marked NPs receive a unified account.

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