

## Extraordinary complement extraction

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This paper observes a serious problem for Bošković's (in press a/in press b) analysis of traditional NPs (TNPs) in Serbo-Croatian (SC) and more generally the approach to phases developed in that work, which concerns extraction of PP-complements in (1). I then show the problem can be resolved by an independently needed mechanism.

Assuming a *contextual* approach to phasehood, Bošković (in press) argues the highest phrase within the extended projection of a lexical category functions as a phase. Languages without articles have been claimed to lack DP (e.g. Corver 1992; Zlatić 1997; Bošković 2005). In Bošković's approach to phases, this is reflected in the phasal status of NP: NP is a phase in SC as the highest projection in TNP, but not in English because DP is present (i.e. DP=phase). Assuming the locality constraints on movement in (2), there are empirical consequences on which elements can move out of TNP in different languages: while English allows N-complement movement (3), SC disallows it with Ns that assign structural (genitive) case (4) because SC NP is a phase and its complement has to move to SpecNP (given (2a)), violating (2b). However, PP-complements can move out of NPs in SC (1). This is problematic since (2a) forces PP-complements to move to SpecNP, which violates (2b). (1) is thus wrongly ruled out. Similarly, complements of inherent-case assigning Ns in SC can move (5). Bošković (in press) argues these NPs have more structure than the ones with structural case in (4) (additional FP projection (6); F is a case-assigning 'preposition-like' element). NP2 can then move to SpecNP1 in (6), without violating (2b). There is a problem, however. This FP cannot be assumed to be part of the extended projection of NP2, since then it would be a phase as the highest projection, blocking the movement of NP2 via (2). Furthermore, Bošković assumes FP is headed by a P-like element, but this is also problematic. Since SC disallows P-stranding (see below), NP2 should not be able to move, stranding F (Moving the whole FP violates (2), since NP1 is a phase). Bošković's system accounts for (4), and the contrast in (3)/(4), but (1) and (5) are problematic.

I show these issues can be overcome by a mechanism used to account for extraordinary left-branch extraction (LBE) (Bošković 2005). SC is a non-P-stranding language, i.e. the complement of P cannot extract (7). SC PP is assumed to be a phase (Bošković in press; Abels 2003), and the lack of P-stranding is accounted for by (2), since the NP has to pass through SpecPP to move out. This language allows LBE of modifying (NP-adjoined) APs (8), but when a modified NP is a complement of P, LBE is disallowed (9) because AP would have to move to SpecPP first (2a), which violates (2b). If P also moves, this movement is allowed (=extraordinary LBE (10)). Regarding (10), Bošković (2005) argues P moves to AP, and then the "P+AP" complex moves out of the PP (11). A remnant movement analysis (RMA) has also been proposed for (10), where (10) involves NP movement out of PP, followed by PP movement (Franks&Progovac 1994), but Bošković gives arguments against it: e.g. (12) shows extraordinary LBE is allowed out of adjuncts (This would be wrongly ruled out by the RMA). Given that LBE out of PP is allowed only if the P moves out of its base position, Bošković (2011/2012) explains such LBE in light of (13), motivated by (14) where wh-movement out of DP is allowed only if the article incorporates into the verb and its trace in D is deleted. It has been observed that PF-deletion is able to repair island violations (Ross 1969), as in (15). Bošković extends the following \*-marking account of (15) to (13/14): (i) once a locality violation occurs, a \* is assigned to the head of the island (not the island itself); (ii) If the \* remains at PF, the derivation crashes; (iii) If the \* gets removed independently (as in (15) by ellipsis), the derivation is rescued. Regarding (14), the reason why otherwise disallowed extraction improves if the head moves is that the \*-marked copy (trace) of the phasal head gets deleted in PF via copy-deletion, rescuing the derivation. Returning to (10)/(11), PIC forces AP to stop in SpecPP; this violates (2b), so a \* is placed on P. When P moves to adjoin to AP, it leaves a copy that is deleted in PF, which means the \* on P is deleted. This is how extraordinary LBE is accounted for (11).

I propose that (1) involves the same derivation. More precisely, it is not the whole PP that moves, but rather, the NP-complement of P moves to SpecPP (anti-locality is violated; a \* is placed on P), P then cliticizes onto the NP (leaving a copy that is deleted in PF in the \*-marked position), which results in PF-rescue of a derivation that violates anti-locality (16). Moreover, given that a P-like element has been claimed to assign inherent case, we may assume the FP proposed for these contexts (6) is in fact a PP, which was not an option under Bošković's original analysis, and extend this account to these situations as well. This removes the issue of the nature of FP, which is now a PP headed by a null P. If we assume that the null P behaves just like overt Ps in SC, we can still account for (5). The above analysis thus unifies the extractions in (1), (5), and (10),

treating all these cases in terms of extraordinary LBE, and resolves the problems that (1) and (5) raise for the contextual approach to phases discussed above.

(1) a. *Za koji problem<sub>i</sub> si otkrio [NP rješenja t<sub>i</sub>]?*

to which problem are discovered solutions

‘To which problem did you discover solutions?’

(2) a. *PIC*: The domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations (Chomsky 2000).

b. *Anti-locality*: Each movement has to cross at least one full XP: complement-to-spec movement, and movement from a complement-adjoined position to spec of the same phrase are too short. (Bošković 2005; Abels 2003).

(3) a. *For which problem<sub>i</sub> did you find*  
[DP [NP solutions t<sub>i</sub>]].

(4) a. *\*Ovog studenta<sub>i</sub> sam pronašla [NP knjigu t<sub>i</sub>].*  
this.GEN student am found book.ACC

‘Of this student I found the book’

(5) a. *Surovom smrću<sub>i</sub> ga je uplašila [NP prijetnja [FP t<sub>i</sub>]].*  
cruel death him.CL is scared threat

‘The threat of cruel death scared him.’

(6) [NP<sub>1</sub> prijetnja [FP [NP<sub>2</sub> surovom smrću ]]]  
threat cruel death

(8) *Lijepu<sub>i</sub> je kupila [NP t<sub>i</sub> [NP kuću]].*  
beautiful.ACC is bought house.ACC

‘She bought a beautiful house.’

(10) *U veliku on uđe [PP t<sub>i</sub> sobu].*  
in big he entered room

‘He entered the big room.’

(12) *Zbog čijih<sub>i</sub> je došao [PP t<sub>i</sub> studenata]?*

Because-of whose is arrived students

‘He arrived because of whose students?’

(13) a. Traces do not head islands.

b. A phrase that is normally a barrier to movement ceases to be a barrier if headed by a trace. (Bošković (2011)

(14) a. *\*De quén<sub>j</sub> liches [DP os mellores poemas de amigo t<sub>j</sub>]?*

of whom read (you) the best poems of friend

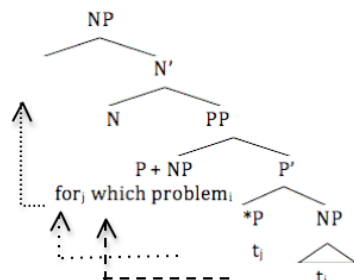
b. (?) *De quén<sub>j</sub> liche-los<sub>i</sub> [DP[D t<sub>i</sub> [mellores poemas de amigo t<sub>j</sub>]]]*

of whom read-(you)-the best poems of friend

‘Who did you read the best poems of friend by?’ [Galician: Uriagereka 1996; Bošković 2012]

(15) *Ben will be mad if Abby talks to one of the teachers, but she couldn’t remember [which (of the teachers)]<sub>i</sub> Ben will be mad [if she talks to t<sub>i</sub>].* → ungrammatical without ellipsis (Merchant 2001)

(16)



b. *Of whom<sub>i</sub> do government employees see*  
[DP [NP pictures t<sub>i</sub>]] every day.

b. *\*Koga<sub>i</sub> si pronašla [NP knjigu t<sub>i</sub>]?*   
who.GEN are found book.ACC

‘Of whom did you find the book?’

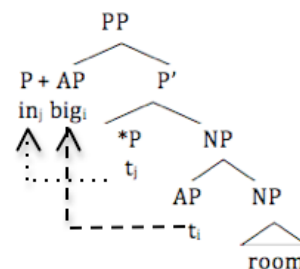
b. *Čime<sub>i</sub> ga je [NP prijetnja [FP t<sub>i</sub>]] uplašila?*  
what.INSTR him is threat scared

‘The threat of what scared him?’

(7) *\*Sobu<sub>i</sub> on uđe [PP u t<sub>i</sub>] (juče).*  
room he entered in (yesterday)

(9) *\*Veliku<sub>i</sub> on uđe [PP u [NP t<sub>i</sub> [NP sobu]]].*  
big he entered in room

(11)



**Selected references:** Bošković, Ž. 2005. On the locality of left branch extraction and the structure of NP. *Studia Linguistica* 59(1). 1-45. Bošković, Ž. 2011. Rescue by PF deletion, traces as (non)interveners, and the that-trace effect. *LI* 42(1). 1-44. Bošković, Ž. In press a. Phases beyond clauses. Bošković, Ž. In press b. Now I’m a phase, now I’m not a phase: On the variability of phases with extraction and ellipsis. Uriagereka, J. 1996. Determiner clitic placement. In R. Freidin (ed), *Current issues in comparative grammar*, 257-294. Zlatić, L. 1994. An asymmetry in extraction from noun phrases in Serbian. *ILS* 7. 207-216.