Binding and the Structure of NP in Serbo-Croatian*

Abstract: On the basis of a series of binding facts, this paper argues that Serbo-Croatian (SC) does not project DP and that DP is not a universal property of language. It is shown that a number of binding contrasts between English and SC follow straightforwardly from independently motivated differences in their nominal structure, most notably, from the assumption that DP is present only in English. The paper also provides a detailed discussion of the potential significance of the puzzling set of facts in question for the Binding Theory in general. Specifically, it is proposed that SC employs Condition C as defined in Lasnik (1989), and, in addition to the core binding conditions, a competitive mechanism adopted from Safir (2004), which regulates the distribution of reflexives, pronouns and R-expressions. The paper also argues that the binding domains for pronouns and reflexives in SC need to be formulated differently.

Keywords: Structure of NP, Conditions B and C, coreference, competition, anti-subject orientation.

1 Introduction

Among the interesting issues raised by the study of Serbo-Croatian (SC), and more generally Slavic languages, is the extent to which they pose a challenge to certain claims made about Universal Grammar which are based on the study of non-Slavic languages. One such claim, which has been a topic of a lot of discussion in the literature, is that DP is a universal projection, and that all languages, including article-less languages like SC and most Slavic languages, have overtly or covertly realized DP. Thus, the proponents of the so-called *Universal DP Hypothesis* (UDPH) argue that the structure of NP is

universal, regardless of the presence/absence of overt articles in a language. According to this view, most notably represented by Progovac (1998) and Bašić (2004) for SC, the difference between languages with overt articles such as English and languages that lack articles such as SC is simply PF-based. That is, a D head exists even in languages like SC but it is not pronounced. For example, Bašić (2004: 26) takes (1) to be the structure of SC noun phrase:

(1) $[_{DP}$ ovaj $[_{D'}$ D $[_{PossP}$ njegov $[_{Poss'}$ Poss $[_{\alpha P}$ brbljivi $[_{\alpha'}$ α $[_{NP}$ sused]]]]]]]

this his talkative neighbor

'This talkative neighbor of his'

This position, however, has not gone unchallenged. Authors like Baker (2003), Bošković (2005), (2008), Chierchia (1998), Fukui (1988), among others, have argued on independent grounds that DP is not a universal projection and that languages may differ with respect to whether they instantiate it. One of the most articulated proposals in this respect is made by Bošković (2005, 2008), who observes that languages without articles differ from languages with articles in surprising but quite systematic ways. A summary of Bošković's (2008) cross-linguistic generalizations in which the two language groups consistently differ is given below[1]:

(2) a. Only languages without articles may allow 'Left Branch Extraction'.

b. Only languages without overt articles may allow 'Adjunct Extraction'.

c. Only languages without articles may allow (Japanese-style) scrambling.

d. Languages without articles disallow Negative Raising (i.e., strict NPI licensing under Negative Raising), and languages with articles allow it.

e. Multiple Wh-Fronting languages without articles do not show Superiority effects.

f. Only languages with articles may allow clitic doubling.

g. Languages without articles do not allow transitive nominals with two genitives.

h. Only languages with articles may allow the majority superlative reading.

i. Head Internal Relatives are island sensitive in languages without, but not in those with articles.

j. Polysynthetic languages do not have articles.

Along the lines of Corver (1992), Bošković (2008) (see also Bošković, 2005) proposes a DP/NP parameter whereby all of the noted differences are analyzed as a consequence of the lack of DP in languages without articles. According to this view, in languages without overt articles, the structure of the noun phrases is as in (3). Here prenominal elements modifying the noun and agreeing with it in case, number and gender are adjoined to NP^2.

(3) $[_{NP}$ Demonstr. $[_{NP}$ Poss. $[_{NP}$ AP $[_{NP}$ N]]]] (Bošković, 2005)

This paper presents another argument in favor of the view of the second group of authors, which is based on SC binding facts. I contend that the exactly opposite behavior of English and SC with respect to a number of binding phenomena can be straightforwardly accounted for under the assumption that DP is projected in English, but not in SC. At the same time, I show that this assumption goes a long way in explaining the complex binding situation in SC as well. The hope is that the new facts from SC presented in this paper will enable us to better comprehend the nature of the principles behind the Binding Theory in general. The goal of this paper is therefore to present the new SC data and a

number of contrasts in binding between English and SC, point out the relevance of these facts for the structure of NP, and then explore their consequences for the Binding Theory.

The article is structured as follows. In section 2 I present and discuss the noted binding facts, which are mainly related to the distribution of pronouns and R-expressions in SC, and use them as a testing ground for checking predictions the abovementioned two approaches make with respect to binding. The main claim is that only a view that assumes the lack of DP in SC, and allows prenominal modifiers to c-command out of their noun phrases can handle SC binding facts in a non-circular manner. I also show how my proposals neatly converge with other, independent facts from SC. In light of this discussion, in section 3, I examine implications of this analysis for the Binding Theory in general. Although the proposal that SC lacks DP is essential for explaining the main binding contrasts between English and SC, certain additional assumptions about general properties of the SC binding system are necessary in order to gain a clear picture of the full range of the facts in questions. In particular, I argue in this section that in SC Condition C should be defined as in Lasnik (1989) and that the binding domains for pronouns and anaphors in SC need to be formulated in different ways. In addition, I propose that the competitive mechanism proposed by Safir (2004) is active in SC, and that it can affect its binding/coreference possibilities to a significant degree. I also discuss the notion of anti-subject orientation of pronouns and argue that SC facts lend support to approaches on which the existence of anti-subject oriented pronouns naturally follows from the distribution of subject oriented anaphors (e.g., Hellan, 1988, Burzio 1989, 1991, 1996, Safir 2004 etc.), and not from some independent principle of grammar.

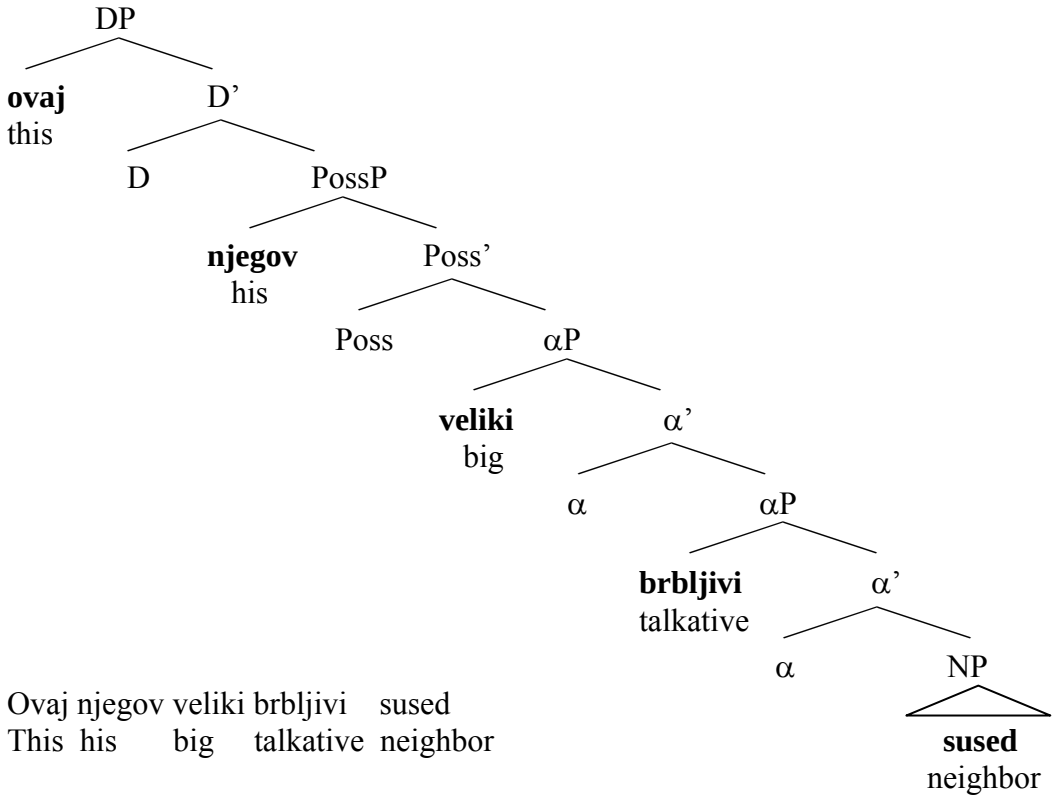
2 The Universal DP Hypothesis and Binding

In this section I will present a few puzzling binding data paradigms from SC, which constitute the core of the paper and which have not been given systematic attention in the literature so far. Before proceeding to the data in question, I will briefly go over some key theoretical underpinnings of the UDPH which are relevant for the purposes of our discussion, in order to make my endpoint as clear as possible.

There are two arguments that proponents of the UDPH most commonly use in favor of the structure in (1) over the traditional NP analysis. First, only the structure in (1) directly derives the adjective ordering restrictions from phrase structure, and doesn't need to stipulate it by some external mechanism. Second, only (1) finds straightforward support in Kayne's (1994) Antisymmetry view of syntax, since contrary to the traditional NP-adjunction analysis of APs, it is compatible with Kayne's approach, which allows only one specifier per projection and predicts that that specifier must be on the left[3].

The first argument essentially comes from Cinque's assumptions about the phrase structure. Bašić (2004), for instance, follows Cinque (1994) in this respect and assumes that all attributive adjectives are generated in specifier positions of αPs, functional projections in the functional spine of DP. This is based on Cinque's (1994) observation that the distribution of adjectives in noun phrases closely resembles the distribution of adverbs in verb phrases. The claim is that the strict ordering of adjectives in noun phrases reflects the fact that they are generated in specifiers of different, hierarchically ordered universal functional projections between D^0 and NP, as shown below in a slightly expanded version of (1) (see also Scott 2002 and references therein for a similar view):

(1)



There are, however, some well-known general conceptual problems with this argument. For instance, as Bobaljik (1999) points out, taking the restrictions of adverbial/adjectival ordering to be a result of a fixed universal function projection hierarchy in the phrase structure leads to some non-trivial word order paradoxes, which necessarily leads to postulating multiple hierarchies, and hence effectively diminishes the strength of the parsimony aspect of Cinque's argument. Also, Bošković (2009) observes that the ordering restrictions of adjectives with respect to demonstratives and possessives, can get a principled account in terms of filtering effects of semantics. Bošković shows that possessives in SC stand in a freer ordering relation with respect to adjectives, in that they can both precede or follow them, whereas demonstratives necessarily precede both possessives and adjectives. Under the standard assumption which takes demonstratives to

be of type <<e,t>, e>, and most adjectives to be of type <e,t>, and according to which possessives are modificational, it is natural to assume that semantic composition requires demonstratives to be composed at the end, that is, after adjectives and possessives. Under this view, semantic composition essentially does not regulate the order of possessives and adjectives relative to each other in any way, which is consistent with the facts. However, while semantic composition allows possessives to be composed either after or before modifying adjectives, demonstratives must be composed after both possessives and adjectives, which overall matches the actual SC facts. The claim is then that since these ordering restrictions follow from semantic requirements, syntax can generate all the orders, but semantics will filter out the unacceptable ones. Bošković, thus, argues the adjectival ordering restrictions follow directly from semantic composition, and need not be imposed by syntax. Without going into any more details of the arguments for and against Cinques's proposal, I will continue with the assumption that there is not enough evidence which conclusively shows that assigning adjective ordering restrictions to the phrase structure would be any less stipulative than analyzing them as a property of some syntax-external (semantic) mechanism (see also Ernst 2002, and Shaer 1998, among others, for arguments against Cinque's view of adverbs, some of which can be extended to his treatment of adjectives).

The second argument is more directly relevant to the main research question of this paper. For the theoretical argument about the position and number of specifiers per projection to carry weight, an account would need to adopt the Antisymmetric view of syntax entirely, with all the possible repercussions. In what follows, I show that adopting

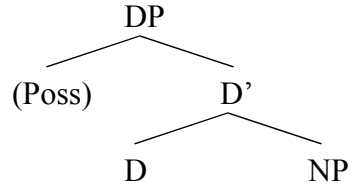
both the universal DP structure and the system proposed in Kayne (1994) is not tenable for SC. Furthermore, I show that a range of SC facts raise serious problems for the UDPH, regardless of the Antisymmetry argument; i.e., while they should in principle not even exist under the UDPH, the facts in question are easily explained under the assumption that DP is not universal. Since under the UDPH the structure in (1) is the structure for noun phrases in both English and SC, the two languages are predicted not to exhibit any fundamental difference in their syntactic behavior. In the following section, I show that this prediction is not borne out and that English and SC differ in their binding properties quite systematically. I will argue that methodologically and empirically the most adequate way of accounting for these differences is to assume that DP is projected only in English. Such an approach, I claim, does not introduce unnecessary stipulations and is directly compatible with the abovementioned cross-linguistic observations made by Bošković (2008).

2.1 The UDPH, Kayne (1994) and SC

Assuming a standard DP structure as in (6) for English, the grammaticality of (4)-(5) is as expected: being in specifiers of subject DPs, the possessives *his*$_i$ and *John*$_i$ do not c-command *John*$_i$ and *him*$_i$, respectively, and thus do not violate Conditions C and B.

(4) His$_i$ father considers John$_i$ highly intelligent.

(5) John$_i$'s father considers him$_i$ highly intelligent.

(6) 

(Standard Approach)

However, under Kayne's Antisymmetry approach, specifiers are adjuncts and, by virtue of the definition of c-command given in (7) they c-command out of the category they are adjoined to/are specifiers of:

(7) X c-commands Y iff X and Y are categories, X excludes Y and every category that dominates X dominates Y (X excludes Y if no segment of X dominates Y).

Given this, (4) and (5) would be incorrectly predicted to be ungrammatical under the structure in (6), since *his*$_i$ and *John*$_i$ are dominated only by a segment of the subject DP, and therefore do c- command *John*$_i$ and *him*$_i$, violating Conditions C and B, respectively. To resolve this problem Kayne makes two important assumptions. First, following Szabolcsi's (1981, 1983, 1992) analysis of Hungarian possessives, Kayne assumes that the possessor is preceded by an independent D, much as in the Italian example in (8):

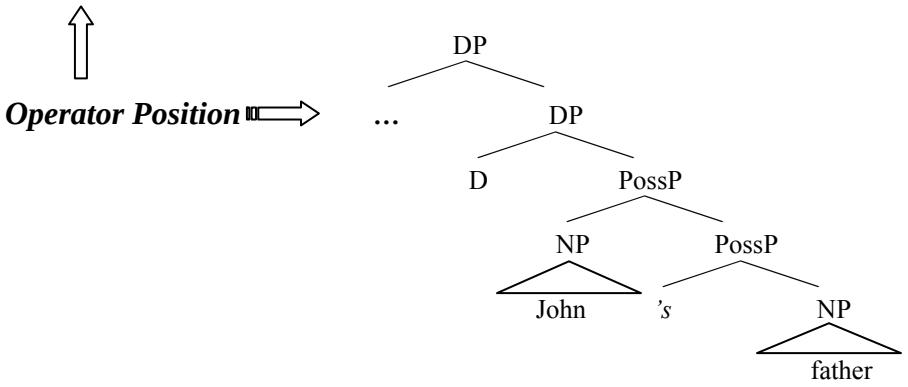
(8) il mio libro

the my book

Kayne proposes that in English, too, the prenominal possessor is the specifier of a PossP, which in turn is dominated by a DP with a null D head, as in (9). (4) and (5) are then accounted for: the additional null DP projected above the possessor prevents *his*$_i$ and *John*$_i$ from c-commanding the co-indexed elements outside the DP. Second, also following Szabolcsi, the specifier of the null DP is argued to be an exclusive operator position, which although essential to operator-variable binding of a pronoun, is irrelevant to Conditions A, B and C of the Binding Theory. Kayne proposes that quantificational possessor phrases move up to this position at LF. Motivation for this movement comes from examples such as (10)-(11), where the QP 'every girl' undergoes covert movement

to the specifier of DP. Since from this position the QPs c-command the rest of the sentence, a bound variable interpretation of the pronoun *she* in (9) is legitimate. (10), on the other hand, is still excluded, since it is assumed that the operator cannot license a reflexive from this position (see Kayne, 1994, and references therein for further details of the analysis).

(9) $[_{DP}$ …$[_{D'}$ D $[_{PossP}$ John $[_{Poss'}$'s $[_{NP}$ father]]]]].



(10) Every girl's father thinks she is a genius.

(11) *Every girl's father admires herself.

Returning to the question of how this relates to the structure of SC noun phrases, we see that (9) resembles (1) in one significant way: they both have a DP headed by a null D above the possessor. This projection plays a very important role in Kayne's approach, since (i) it is necessary to explain the facts in (4) and (5) in a way consistent with the assumption that 'specifiers' c-command out of their projections and (ii) by making certain assumptions about the character of this projection's Spec position, Kayne seems to be able to account for an interesting operator-variable paradigm in English within his framework.[4] The question is then whether the DP headed by a null D in (1) plays a significant role in SC. If it does, and if the argument from Antisymmetry holds, we

expect SC binding facts not to differ from English in any fundamental way, i.e., the DP above the possessor should prevent illicit c-command relationships between the possessor and co-indexed elements in the sentence. Consider in that respect the following SC constructions:

(12) *Kusturicin$_i$ najnoviji film ga$_i$ je zaista razočarao.

Kusturica's latest film him is really disappointed

'Kusturica$_i$'s latest film really disappointed him$_i$.'

(13) *Njegov$_i$ najnoviji film je zaista razočarao Kusturicu$_i$.

His latest film is really disappointed Kusturica

'His$_i$ latest film really disappointed Kusturica$_i$.'

(14) *Jovanov$_i$ papagaj ga$_i$ je juče ugrizao.

John's parrot him is yesterday bitten.

'John$_i$'s parrot bit him$_i$ yesterday.'

(15) *Njegov$_i$ papagaj je juče ugrizao Jovana$_i$.

His parrot is yesterday bitten John

'His$_i$ parrot bit John$_i$ yesterday.'

(16) *Markova$_i$ lopta ga$_i$ je juče udarila u glavu.

Marko's ball him is yesterday hit in head

'Marko$_i$'s ball hit him$_i$ in the head yesterday.'

(17) *Njegova$_i$ lopta je juče udarila Marka$_i$ u glavu.

His ball is yesterday hit Marko in head

'His$_i$ ball hit Marko$_i$ in the head yesterday.'

There is a clear difference in acceptability of these sentences in English and SC. While in English all of these examples are straightforward on the relevant readings (to the extent that the Backwards Anaphora of the sort illustrated in (13)/(15)/(17) is allowed in the language), none of the constructions in question are grammatical in SC.[5] This suggests that possessors in SC do c-command out of the subject noun phrases they are possessors of, and thus induce Condition C and B violations[6]. If there were no essential difference in the phrase structure of the nominal domain between English and SC, and if the structure of SC NP were as in (1), as suggested by the UDPH, we would expect the two languages to behave similarly with respect to binding, contrary to fact. These data, however, strongly suggest that there is no projection dominating the subject phrase that would block this illicit relation. In order to explain the contrast between SC and English a UDPH approach to SC would have to make additional stipulations, and would face serious difficulties in dealing with Bošković's generalizations given in (2) in a principled manner. On the approach developed here, which is completely compatible with Bošković's observations, the contrast in question comes for free and is a direct result of a deep structural difference between SC and English. I argue that, in contrast to English, SC does not project a DP and that all prenominal modifiers (demonstrative, possessives, and adjectives) in this language are adjoined to the NP they modify.[7] Since prenominal modifiers are dominated by segments (e.g., May, 1985), they c-command out of their NPs (see (7)), and violate Conditions B and C in structures like (12)-(17). It is therefore important to note, in this respect, that both demonstratives and possessives are morphologically adjectival in SC, in that they agree with the noun they modify in case,

number and gender in the same way adjectives do. This is illustrated in (18) with respect to a partial case paradigm (see Bošković 2005 and Zlatić 1997 for details):

(18) a. oni<u>m</u> Milanovi<u>m</u> zeleni<u>m</u> knjigama

those$_{FEM.PL.INSTR}$ Milan's$_{FEM.PL.INSTR}$ green$_{FEM.PL.INSTR}$ books$_{FEM.PL.INSTR}$

b. oni<u>h</u> Milanovi<u>h</u> zeleni<u>h</u> knjiga

those$_{FEM.PL.GEN}$ Milan's$_{FEM.PL.GEN}$ green$_{FEM.PL.GEN}$ books$_{FEM.PL.GEN}$

Moreover, SC possessives and demonstratives syntactically behave like adjectives in every respect, which is completely consistent with the proposed analysis (see Bošković 2005, 2010, and Zlatić 1997 for a number of arguments to this effect, which are based on the appearance of SC possessives and demonstratives in adjectival positions, stacking up, impossibility of modification, specificity effects, etc.; I return to this issue below)[8].

A particularly compelling argument against the UDPH analysis of SC comes in fact from constructions which involve both demonstratives and possessives. In order to account for the ungrammaticality of (12)-(17) one may argue for a 'weaker' version of the UDPH. That is, it might be hypothesized that in languages like SC DP is actually not always present, and that it is projected only when the specifier of DP (i.e., the demonstrative in (1)) is overtly realized. Thus, on this version of the DP analysis of SC, the DP in (1) would be projected only if the demonstrative is overtly realized. The prediction is then that (12)-(17) should improve significantly if the demonstrative is added to the subject NPs in these sentences. This, however, is not correct. Consider (19a-b), which are as unacceptable as (14) and (15) are:

(19) a. *[$_{NP}$ Ovaj [$_{NP}$ Jovanov$_i$ [$_{NP}$ papagaj]]] ga$_i$ je juče ugrizao.'

This John's parrot him is yesterday bitten

'This parrot of John$_i$'s bit him$_i$ yesterday.'

b. *[$_{NP}$ Ovaj [$_{NP}$ njegov$_i$ [$_{NP}$ papagaj]]] je juče ugrizao Jovana$_i$.

This his parrot is yesterday bitten John

'This parrot of his$_i$ yesterday bit John$_i$.'

To be more precise, on this hypothetical, 'weaker' variant of the UDPH approach to SC, the structure of the subject NP in (14) would be as in (20):

(20) [$_{PossP}$ Jovanov [$_{Poss'}$ Poss [$_{NP}$ papagaj]]].

John's parrot

This modification of the UDPH would ultimately account for the unacceptability of (14). In particular, given Kayne's proposal that specifiers c-command out of their phrases, (14) would violate Condition B since, by assumption, there would be no DP headed by a null D above the PossP in (20) that would prevent the object pronoun in (14) from being c-commanded by the possessor *Jovanov* 'John's'. By the same logic the status of the rest of the paradigm in (12)-(17) would also be accounted for. The unacceptability of (19), however, directly challenges this alternative version of the UDPH. Since the demonstrative is overtly present in (19), which according to (1) should signal the presence of an underlying DP headed by a null D, we should expect (19) to be acceptable, i.e., this DP should block the possessive from c-commanding into the structure and thus no binding violation should arise. However, (19) is as ungrammatical as (12)-(17) are, which clearly argues even against this alternative, 'weaker' rendition of the UDPH

analysis. The adjunct-based approach advanced here, on the other hand, predicts exactly this state of affairs. More precisely, adding a demonstrative to the subject in (12)-(17) should not affect the overall unacceptability of these constructions at all, since both the possessor and the demonstrative are adjuncts and they both c-command out of the subject NPs. Their relative order is here taken to be a result of semantic composition (not of intrinsically ordered functional projections), as discussed in the previous section (see also Bošković 2009). The same type of argument can be made with respect to adjectives as well, i.e., as already pointed out, the order between adjectives and possessors in SC is relatively free, which would on at least some versions of the UDPH (see (1) and Cinque (1994), for instance) predict the absence of binding condition violations in cases where the possessor is linearly preceded by an adjective. More precisely, the functional projection αP which hosts the adjective in (21a) should be located above PossP by assumption (i.e., (21c)) and therefore prevent *Jovanov* 'John's' from c-commanding the pronoun in the object position. Again, the expected contrast does not arise; such examples are as unacceptable as those in which the adjective follows the possessor, as shown in (21a-b), which provides additional support for the view laid out here.

(21) a. *[$_{NP}$ Omiljeni [$_{NP}$ Jovanov$_i$ [$_{NP}$ papagaj]]] ga$_i$ je juče ugrizao.
Favorite John's parrot him is yesterday bitten

b. *[$_{NP}$ Jovanov$_i$ [$_{NP}$ omiljeni [$_{NP}$ papagaj]]] ga$_i$ je juče ugrizao.
John's favorite parrot him is yesterday bitten
'John$_i$'s favorite parrot bit him$_i$ yesterday.'

c. [$_{\alpha P}$ Omiljeni [$_{\alpha'}$ α [$_{PossP}$ Jovanov …]]]

Favorite John's

Now, it is important to show that (12)-(17) violate binding conditions and not something else. When the possessive clearly does not c-command the element coindexed with it, as in (22), no binding condition violations arise:

(22) a. Papagaj kog je Jovan$_i$ oduvek najviše voleo ga$_i$ je juče ugrizao.

Parrot who is John always most loved him is yesterday bitten

'The parrot which John$_i$ has always loved the most bit him$_i$ yesterday.'

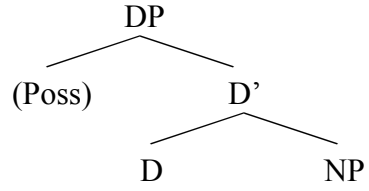
b. Onaj ko voli njegovog$_i$ papagaja voli i Jovana$_i$.

That who loves his parrot loves and John

'The one who loves his$_i$ parrot loves John$_i$ as well.'

In the preceding pages I have closely examined the often-cited Antisymmetry argument in favor of the UDPH, according to which a structure like (1) is conceptually superior to the traditional NP-adjunction view of the SC NP, and tried to illustrate how (12)-(17) challenge it. The inevitable conclusion seems to be that (1), despite its elegance and appeal, requires some radical modification in order to deal with the facts in question in a convincing manner. Although this discussion has focused on the Antisymmetry-based version of the UDPH, which deserves special attention since it makes a number of interesting predictions, it is important to point out that (12)-(17) are equally problematic for approaches which propose a more 'standard' DP structure for SC. More specifically, even if we assume (6) from the beginning of this section (repeated below as (23)) as the structure of DP in SC, in which the possessive is located in SpecDP and does not c-

command the element co-indexed with it, (12)-(17) would still incorrectly be predicted to be good.

(23) 

(Standard Approach)

Thus, irrespective of the Antisymmetry argument, the binding contrast between English and SC is quite puzzling from the UDPH perspective in general and in principle should not exist. The contrast in question, on the other hand, is directly compatible with approaches that argue that DP is not universal since it is easily derivable from the structural "deficiency" of the SC noun phase, i.e., the two main factors that underlie this contrast are: (i) SC possessors c-command out of the phrase they modify because they are adjuncts, and (ii) there is no DP layer above NP in SC which would block possessors from c-commanding out of their noun phrases. Both of these assumptions are supported by strong independent evidence. For instance, (ii) is supported by the fact that SC behaves like a typical DP-less language with respect to Bošković's (2008) cross-linguistic generalizations, e.g., in contrast to English, it is a scrambling language which allows left-branch extraction and adjunct extraction from NPs, among other things. The key factor underlying many of these properties is the absence of DP, which due to space considerations I cannot go into here (see Bošković's 2008, 2010 for details). The assumption (i), on the other hand, is supported by a number of independent, language-specific properties of SC, as explicitly argued by other authors as well (e.g., Bošković

2005, Zlatić 1997). As an illustration of this, consider the following interesting characteristic of SC possessives:

(24) a. *Lepi čovekov pas.

Beautiful man's dog

'Beautiful man's dog.' (only available meaning: 'The/a man's beautiful dog')

b. *Taj dečakov pas.

That boy's dog

'That boy's dog.' (only available meaning: 'That dog of the/a boy')

c. *Jovanov bratov pas.

John's brother's dog

'John's brother's dog.'

Unlike in English (and many other languages), possessives in SC cannot be modified by other possessives, demonstratives or adjectives, as shown in (24). Thus, in (24a) the adjective *lepi* 'beautiful' can modify only the head noun *pas* 'dog' not the possessor *čovekov* 'man's'. Similarly, it is impossible for the demonstrative *taj* 'that' to modify the possessor; it can only pick out the noun *pas* 'dog' (e.g., (24b)). Finally, (24c) shows that a possessor cannot be further modified by another possessor, which is, of course, perfectly fine in English. Recall, at the same time, that all of these elements are adjectival in the sense that they agree with the noun they modify in case, number and gender and are argued here to be adjuncts. While (24) is surprising for any UDPH approach to SC, it is straightforwardly accounted for under the present analysis on the rather natural assumption that adjunction to adjuncts is impossible, as proposed and discussed in many

places (e.g., Chomsky 1986a, Saito 1994, Takahashi 1994, etc.). This, on the other hand, converges quite neatly with the binding facts presented in this section, which I take to be further support for the general approach advocated here (for other arguments of this kind see Despić 2011). It is also worth noting that I have argued in this section only against the uncompromising version of the UDPH, namely that all languages have the same structure in the nominal domain, and that the apparent overt differences reflect only PF phenomena. That is, I do not necessarily argue against the possibility that some functional structure may be projected above SC NPs but only that positing null projections must be empirically justifiable.[9] More generally, the aim of this section has been to provide an account that would unify a range of seemingly disparate phenomena by pointing out that whether or not a language has DP may often impact its other general properties to a significant degree. At the same time, I hope to have shown that by fleshing out details of the nominal structure in a language like SC, this type of approach may also be able to shed light on certain aspects of the English DP, which would otherwise go unnoticed.

Now, although the lack of DP is one of the key factors to understanding the nature of binding in SC and plays an important role in explaining a significant portion of SC binding facts, it is not sufficient to account for the full range of data. In order to gain a complete understanding of binding in SC, certain additional assumptions about the SC binding system in general need to be properly spelled out; i.e., recognizing the effect the lack of DP has on binding in SC is a promising start, but it is not the whole story. The goal of the next section therefore is to discuss binding in SC in more detail and explore

the implications of the novel SC facts presented in the next section for binding in SC and the Binding Theory in general.

3 Binding in SC

In light of the above discussion, a particularly interesting questions lurking behind (12)-(17) is: How do in fact native speakers of SC express the meanings of these unacceptable constructions, which are otherwise fairly easily accessible in English? Given the status of (12)-(17), and in particular the claim that in SC possessors c-command out of the NPs they modify, it is expected that a construction like (25) should, similarly to (15), violate Condition C.

(25) Jovanov$_i$ papagaj je juče ugrizao Jovana$_i$.

John's parrot is yesterday bitten John

'John$_i$'s parrot bit John$_i$ yesterday.'

Somewhat unexpectedly, however, (25) is good. This suggest that (25) does not violate Condition C. The contrast between (25) and (15) becomes even more puzzling in light of (26), which, under the current analysis, involves the same c-command relation between the two R-expressions as (25), yet is ungrammatical.

(26) a. *Jovan$_i$ je juče ugrizao Jovana$_i$.

John is yesterday bitten John

'John$_i$ bit John$_i$ yesterday.'

b. *Jovan$_i$ obožava Jovana$_i$.

John adores John

'John$_i$ adores John$_i$.'

Furthermore, (27)-(28) are more degraded than (26)[10].

(27) a.**On$_i$ je juče ugrizao Jovana$_i$.

He is yesterday bitten John

'He$_i$ bit John$_i$ yesterday.'

b.**On$_i$ obožava Jovana$_i$.

He adores John

'He$_i$ adores John$_i$.'

(28) a.**Jovan$_i$ je juče ugrizao njega$_i$.

John is yesterday bitten him

'John$_i$ bit him$_i$ yesterday.'

b. **Jovan$_i$ obožava njega$_i$.

John adores him

'John$_i$ adores him$_i$.'

The data in (12)-(17) and (25)-(28) raise a number of non-trivial questions and the challenge lies in answering all of them within a restricted and internally consistent set of assumptions which would, at the same time, be in line with the conclusions and predictions of the previous section. My proposal consists of three key parts, which I outline here briefly at the outset of this section so that my endpoint will be clear as I flesh out specific arguments in their support on the coming pages.

First, I adopt Lasnik's (1989) more restricted version of Condition C. Second, I argue that binding domains for pronouns and anaphors in SC should be distinguished. In

other words, I assume that the standard binding conditions apply in SC; i.e., Conditions B and C are syntactic conditions, which rule out derivations not conforming to them.

Finally, I argue that SC also employs Safir's (2004) 'Form to Interpretation Principle' (FTIP) which regulates the distribution of reflexives, pronouns and R-expressions. The FTIP essentially determines whether what Safir calls a dependent identity reading is possible with respect to some designated antecedent and different dependent forms available in a given syntactic context. The effect of the FTIP in a nutshell is that a more dependent form always outcompetes a less dependent form to represent the dependent identity reading. Thus, in any context in which more or less dependent forms are in competition this principle predicts complementary distribution between them. Since one of the main goals of competition approaches to binding is to derive Conditions B and C from various competitive algorithms, the analysis presented here obviously contradicts the main tenets of such approaches, given that it requires Conditions B and C independently. However, I will argue that an analysis balanced exactly this way is required to account for the full range of binding facts in SC, although it might not appear very parsimonious or conceptually appealing.

Consider first Lasnik's (1989) Condition C. Lasnik observes that Condition C effects vary cross-linguistically, and that the variation is parametric in an interesting way. In Thai, for instance, sentences like (26) are fully acceptable. However, if the subject R-expression is replaced by a pronoun, (26a) becomes impossible, as much as (27a) is impossible in SC. On the basis of this, Lasnik concludes that Condition C, unlike

Conditions A and B, involves reference to both the binder and the bindee. His version of Condition C is given in (29) below:

(29) An R-expression is pronoun-free.

Taking this definition to hold for SC as well, we may now be able to account for the difference between (26) and (27), i.e., only (27) violates Condition C, and even though (26) is unacceptable, this cannot be due to a Condition C violation, but rather something else. Note that the ungrammaticality of (13)/(15)/(17) from the previous section (repeated below as (30)/(31)/(32) respectively) is still accounted for under this revised formulation of Condition C.

(30) *Njegov$_i$ najnoviji film je zaista razočarao Kusturicu$_i$.

His latest film is really disappointed Kusturica

'His$_i$ latest film really disappointed Kusturica$_i$.'

(31) *Njegov$_i$ papagaj je juče ugrizao Jovana$_i$.

His parrot is yesterday bitten John

'His$_i$ parrot bit John$_i$ yesterday.'

(32) *Njegova$_i$ lopta je juče udarila Marka$_i$ u glavu.

His ball is yesterday hit Marko in head

'His$_i$ ball hit Marko$_i$ in the head yesterday.'

Following this logic we can also assume that (28) is a Condition B violation. The questions that still remain, however, are what is (26) a violation of, and depending on the answer to that question, why is (25) good?

One, perhaps obvious, way to go about this question, which needs to be considered here briefly, would be to assume Reinhart's (1983) well-known 'Rule I' (see also Grodzinsky and Reinhart, 1993):

(33) Rule I/Coreference Rule: NP A cannot corefer with NP B if replacing A with C, C a variable A-bound by B, yields an indistinguishable interpretation.

The central thesis of Reinhart's proposal is that only one type of relation between co-referring elements is syntactically represented and constrained by principles of grammar, which is the relation of *variable binding* in the sense of formal logic. On this approach *coindexation* has only the bound variable interpretation. *Coreference*, on the other hand, is a type of a semantic relation, which is not represented on any syntactic level and can therefore not be directly licensed or ruled out by structural conditions. The interpretation of coreference construction is obtained when the two elements bear different indices; when they are coindexed, the bound interpretation is obligatory. However, since coreference defined this way is too strong and general and would make many undoubtedly ungrammatical sentences acceptable, Reinhart introduces 'Rule I/Coreference Rule' to limit its distribution. The logic behind this principle in a nutshell is that if a structure could allow bound variable anaphora, coreference is preferred only if it is motivated, i.e., only if it is distinguishable from bound anaphora. In structures where both coreference and coindexation are in principle possible, (33) has the effect of allowing coreference only in contexts where it is distinguishable from the bound interpretation. The basic idea is that in the standard cases the easiest way to express coreference is by means of variable binding. When this option is avoided without relevant

motivation that would give rise to a distinguishable interpretation a lack of coreference intention is inferred (see also Heim 1998 for a reinterpretation of Reinhart's approach).

Following this logic one could argue that (26), repeated below as (34), violates only 'Rule I', not any binding conditions. In other words, what (34) seems to be expressing without additional context is already very expressible by a bound variable construction, where the lower R-expression is replaced with a reflexive (e.g., (35)):

(34)*Jovan$_i$ obožava Jovana$_i$.

John adores John

'John$_i$ adores John$_i$.'

(35) Jovan$_i$ obožava sebe$_i$.

John adores self

'John$_i$ adores himself$_i$.'

Without a suitable context, which would license an interpretation distinguishable from the one in (35), (34) is bad. In a proper context, however, (34) considerably improves ((36) below is adapted from Evans 1980):

(36) Znam šta Ana, Milan i Jovan imaju zajedničko. Ana obožava Jovana, Milan

I know what Ana Milan and John have common Ana adores John Milan

obožava Jovana, a i *Jovan* obožava *Jovana*.

adores John but and John respects John

'I know what Ana, Milan and John have in common. Ana adores John, Milan adores John and *John* adores *John*.'

The context in (36) establishes a property which is shared by Ana, Milan and John. When applied only to (34), the property of adoring John is indistinguishable from the bound variable interpretation of adoring oneself (i.e., (35) – John (λx (x adores x))). When applied to (34) in the context of (36), however, the property shared by Ana, Milan and John is only the property of adoring John and not the property of adoring oneself. Therefore, in the context of (36), which gives rise to a distinguishable interpretation, Reinhart's 'Rule I' does not apply and (34) becomes acceptable. The problem for this type of explanation, however, is the contrast in the acceptability between (34) (repeated here as (37)) and (38), from the beginning of this section.

(37)*Jovan$_i$ obožava Jovana$_i$.

John adores John

'John$_i$ adores John$_i$.'

(38)**On$_i$ obožava Jovana$_i$.

He adores John

'He$_i$ adores John$_i$.'

This contrast in acceptability is also reflected in the fact that when (38) is used in the context of (36) (e.g., (39)), the coreference reading is more difficult to obtain[11]:

(39)?*Znam šta Ana, Milan i Jovan imaju zajedničko. Ana obožava Jovana, Milan

I know what Ana Milan and John have common Ana adores John Milan

obožava Jovana, a i *on* obožava *Jovana*.

adores John but and he respects John

'I know what Ana, Milan and John have in common. Ana adores John, Milan adores John and *he* adores *John*.'

This does not follow from Reinhart's assumptions, since 'Rule I' is intended to completely replace Condition C as redundant, given that names in Reinhart's theory are excluded wherever reflexives and pronouns are possible. Thus, in principle whether an R-expression is anteceded by a pronoun or another R-expression should be irrelevant; i.e., such constructions should be equally unacceptable.

At the same time, unlike (34)/(37), which becomes available in contexts which force the coreferential reading, (40) below does not require any extra contexts. This fact also does not follow from Reinhart's theory.

(40) Jovanov$_i$ papagaj je juče ugrizao Jovana$_i$.

John's parrot is yesterday bitten John

'John$_i$'s parrot bit John$_i$ yesterday.'

It therefore appears that 'Rule I' and the simple distinction between coindexation and coreference do not make the right cut here, even though the logic behind them is appealing and seems to be on the right track. In order to deal with the matter at hand adequately, a more sophisticated and explicit type of competitive approach is needed, which I argue in the next is Safir's (2004) 'Form to Interpretation Principle' (FTIP).

3.1 Safir (2004) and the FTIP

One of the main aims of Safir's (2004) system is to derive complementarity between different dependent forms via the 'Form to Interpretation Principle' given in (41), and the hierarchy of dependent forms in (42):

(41) Form to Interpretation Principle (FTIP): If x c-commands y, and z is not the most dependent form available in position y with respect to x, then y cannot be directly dependent on x.

(42) SIG-SELF >> pronoun-SELF >> SIG >> pronoun >> R-expression

The FTIP compares competing derivations based on alternative numerations containing more dependent forms. Thus, a numeration containing the forms *he, respects, him* will result in the simplified LF in (43b). Since English has a form which is more dependent than the pronoun in the hierarchy in (42), i.e. the pronoun-SELF form, a competing derivation will be the one in (44), which is based on a numeration containing *he, loves, himself*.

(43) a. Numeration: he, loves, him

b. LF: [*he* [loves *him*]]

(44) a. Numeration: he, loves, himself

b. LF: [*he* [loves *himself*]]

Since the comparison determines that *him* is not the most dependent form available in the object position, FTIP determines that the pronoun cannot be dependent (i.e., coindexed with, in Reinhart's terms) on the subject in (43b).

I argue in this section that in terms of the division of labor between different mechanism governing the binding system in SC, the empirically most accurate approach is to assume that in addition to standard Conditions B and C, SC also employs the FTIP. Consider first how this particular proposal accounts for the acceptability of (45); compare (45) with its full alternative paradigm:

(45) Jovanov$_i$ papagaj je juče ugrizao Jovana$_i$.

John's parrot is yesterday bitten John

'John$_i$'s parrot bit John$_i$ yesterday.'

(46) *Jovanov$_i$ papagaj je juče ugrizao sebe$_i$.

John's parrot is yesterday bitten self

'John$_i$'s parrot bit himself$_i$ yesterday.'

(47) *Jovanov$_i$ papagaj ga$_i$ je juče ugrizao.

John's parrot him is yesterday bitten

'John$_i$'s parrot bit him$_i$ yesterday.'

(48) *Svoj$_i$ papagaj je juče ugrizao Jovana$_i$.

Self's parrot is yesterday bitten John

'Himself$_i$'s parrot bit John$_i$ yesterday.'

(49) *Njegov$_i$ papagaj je juče ugrizao Jovana$_i$.

His parrot is yesterday bitten John

'His$_i$ parrot bit John$_i$ yesterday.'

In order to make the argument here explicit a few words concerning the nature of SC reflexives are required. SC uses two kinds of reflexive pronouns: *sebe* and *svoj*. Both *sebe* and *svoj* are generalized to all persons. The possessive form *svoj* takes on various forms since it always agrees with the noun it modifies in gender, number and case. Most importantly, for the purposes of this discussion, these two reflexive pronouns are similar to Norwegian *seg selv* and Japanese *zibun-zisin* in that they are strictly subject-oriented and local. As illustrated in (50), *sebe* and *svoj* can be anteceded only by a local subject:[12]

(50) a. Jovan$_i$ je pričao Marku$_j$ o sebi$_{i/*j}$ /svom$_{i/*j}$ bratu.

John is talked Marko about self self's brother

'John$_i$ told Marko$_j$ about himself/his brother.'

b. Jovan$_i$ je rekao da je Marko$_j$ video sebe$_{*i/j}$/svog$_{*i/j}$ brata.

John is told that is Marko seen self self's brother

'John said that Marko saw himself/his brother.'

Given these properties of the SC reflexives, we can assume that (46) is ungrammatical because *sebe* is strictly subject oriented and cannot be anteceded by the possessor of the subject (which is on this account an adjunct). (47), on the other hand, is a Condition B violation, as discussed in Section 2. (48) is a Condition A violation, and (49) a Condition C violation (assuming Lasnik's definition of Condition C). So, all the potential alternatives to (45) that would involve a pronoun or a reflexive are excluded on independent grounds. This is, however, not true for (37) (repeated as (51) below):

(51)*Jovanov$_i$ je ugrizao Jovana$_i$.

John is bitten John

'John$_i$ bit John$_i$.'

(52) Jovan$_i$ je ugrizao sebe$_i$.

John is bitten self

'John$_i$ bit himself$_i$.'

Like (45), (51) does not violate Conditions B and C, but in contrast to (45), it does have a successful potential alternative which involves the reflexive *sebe* (i.e., (52)). This suggests that (45) is good because all of its alternatives with reflexives or pronouns (i.e.,

(46)-(49)) are ungrammatical, while (51) is unacceptable because there exists a grammatical alternative to it.

Furthermore, with this type of approach we can also explain the contrast in the acceptability between (51), on the one hand, and (53) and (54), on the other.

(53)**On$_i$ je ugrizao Jovana$_i$.

He is bitten John

'He$_i$ bit John$_i$.'

(54)**Jovan$_i$ je ugrizao njega$_i$.

John is bitten him

'John$_i$ bit him$_i$.'

In contrast to (51), which violates only the FTIP, (53) and (54) violate the FTIP and a binding condition each, i.e., (53) violates Condition C and the FTIP (the alternative with the reflexive *sebe* in place of *Jovana* 'John' is available), while (54) violates Condition B and the FTIP (*njega* 'him' as well can be successfully substituted with *sebe*). Thus, since it violates only the competition principle, (51) is less degraded than (53)-(54).[13] The hierarchy of dependent elements in SC would therefore include only three elements:

(55) Sebe >> pronoun >> R-expression

The most highly dependent element in (55) is the reflexive *sebe*, which is a local and strictly subject oriented anaphor, and which in this sense corresponds to *sig-self* in (42) (there are no *pronoun-self* and *sig* type anaphors in SC).

Thus instead of mandating separate domains for each dependent form in such a way that complementary distribution between them is accidental, Safir (2004) develops a

system on which the complementarity in question is derived by principles which select the "best available" form-to-interpretation match. For instance, pronouns are, for the most part, excluded in exactly those environments where anaphors are available, and this complementary distribution was achieved in traditional approaches to binding by positing separate conditions (i.e., Conditions A and B). Safir's approach, however, allows us to eliminate Condition B and its descendents as an independent principle regulating pronouns in the theory of anaphora. This aspect of Safir's approach (and competition-based binding theories in general) clearly contradicts my assumption that Condition B (as well as Condition C) is necessary to explain SC facts. That is, both Conditions B and C are necessary to exclude (47) and (49), respectively. While I believe that principles behind Safir's theory are universal I will argue that (a particular version) of Condition B is needed to account for the full set of facts in SC, and that the effects of the competition between pronouns and reflexives in this language are often obscured by binding conditions. In particular, I will show that exactly in cases in which neither pronouns nor reflexives violate binding conditions, the morphological form of the dependent element in question becomes crucial, as predicted by the FTIP. In the next section I present these cases and justify my position with respect to Condition B in SC.

3.2. Condition B in SC

It is certainly not controversial to assume that binding domains for anaphors and pronouns are not identical. It is well-known that theories which assume Conditions A and B to hold in the same domain and thus predict anaphors and pronouns to have complementary distribution (e.g., Chomsky 1981) are empirically challenged by the fact

that across languages the predicted complementarity does not hold in a variety of configurations. A number of attempts have been made to distinguish the domains of Condition A and B and at least partly resolve the problem of overlapping distribution. Some approaches defined 'governing categories' differently for anaphors and pronouns (e.g., Huang 1983, Chomsky 1986b etc.), while others argued that the domain of Condition B effects (i.e., 'disjoint reference') should be formulated in terms of a predicate's arguments (e.g., Hellan 1988, Sells 1986 etc.). Also, it has been proposed by many that the disjoint reference principle is sensitive to semantic interpretation of arguments (e.g., Reinhart and Reuland 1993, Pollard and Sag 1992, 1994, Williams 1994 etc.). For instance, Reinhart and Reuland 1993 specifically argue that Condition B should be formulated on semantic predicates and Condition A on syntactic predicates (see Kiparsky 2002 for further discussion of these matters).

I offer here evidence that domains for anaphors and pronouns in SC should also be formulated differently. Recall first that I have argued in Section 2 that a structure like (56) violates Condition B:

(56) *Jovanov$_i$ papagaj ga$_i$ je juče ugrizao.

John's parrot him is yesterday bitten.

'John$_i$'s parrot bit him$_i$ yesterday.'

In contrast to (56), (57) is perfectly acceptable: in this example the object pronoun is embedded in an NP:

(57) ✓Jovanov$_i$ papagaj je juče ugrizao njegovog$_i$ brata.

John's parrot is yesterday bitten his brother

'John$_i$'s parrot bit his$_i$ brother yesterday.'

On the other hand, the example in (59), in which the object R-expression is a possessive, is as unacceptable as (58):

(58) *Njegov$_i$ papagaj je juče ugrizao Jovana$_i$.

His parrot is yesterday bitten John

'His$_i$ parrot bit John$_i$ yesterday.'

(59) *Njegov$_i$ papagaj je juče ugrizao Jovanovog$_i$ brata.

His parrot is yesterday bitten John's brother

'His$_i$ parrot bit John$_i$'s brother yesterday.'

Now, note again that the absence of DP in SC is what essentially creates this state of affairs and thus indirectly brings about a series of interesting questions about binding; i.e., the contrasts observed in the constructions above would not exist if SC was like English since structures like (56)/(58) would be good. To account for these facts I propose that SC employs the following version of Condition B, which essentially implies distinct binding domains for pronouns and reflexives:

(60) Condition B: A pronoun is free in its own predicate domain (i.e., phrase).

An element is free if it is not c-commanded by a coindexed NP.

According to (60) the pronoun in (56) is c-commanded by an element (i.e., the possessive) within its own predicate domain (i.e., the whole sentence). When the pronoun is embedded in an NP, as in (57), there is no Condition B violation since there is no

element coindexed with it that c-commands it within that NP.[14] This does not apply to (59) because Condition C, as defined here, is not sensitive to locality domains. At the same time, the pronominal possessive in (57) cannot be replaced by a reflexive possessive *svoj*, because *svoj* is strictly subject oriented:

(61) * Jovanov$_i$ papagaj je juče ugrizao svog$_i$ brata.

John's parrot is yesterday bitten self's brother

The question is then whether or not the acceptability of (57) should be related to the fact that (61) is impossible. Consider in this respect the following examples:

(62) a.??Jovan$_i$ je udario njegovog$_i$ prijatelja.

John is hit his friend

b. Jovan$_i$ je udario svog$_i$ prijatelja.

John is hit self's friend

'John$_i$ hit his$_i$ friend.'

There are two pieces of information that are important here. First, it is fairly well known that native speakers of SC often produce constructions like (62a), despite the fact that they are argued by traditional grammars to be unacceptable (e.g., Stevanović, 1962: 97). Native speakers, however, never produce (63) below with the indicated coindexation:

(63) **Jovan$_i$ je udario njega$_i$.

John is hit him

'John$_i$ hit him$_i$.'

Second, constructions like (62a) become fully acceptable when the possessive pronoun is anteceded by a coordinated NP:

(64) Fuji Heavy Industries Ltd$_i$ i Sumitomo Corp.$_j$ su predstavili njihov$_{i+j}$ zajednički
Fuji Heavy Industries Ltd$_i$ and Sumitomo Corp are introduced their joint
samostalni robotski sistem za čišćenje podova u Sumitomo zgradi u Osaki.
independent robotic system for cleaning floors in Sumitomo building in Osaka
'Fuji Heavy Industries Ltd$_i$ and Sumitomo Corp.$_j$ introduced their$_{i+j}$ joint
independent floor cleaning robotic system in the Sumitomo building in Osaka.'
www.otpornik.info/zanimljivosti/.../101-robot-usisivac.html

On the present approach (62a) falls out quite naturally. It does not violate Condition B, given the definition in (60), and its relative unacceptability is a result of a competition between reflexives and pronouns. Namely, a more dependent form *svoj* 'self's' is available in this construction and it does not outcompete the less dependent form *njegov* 'his'. And exactly in cases like this *njegov* becomes fully acceptable when the coreference reading is forced. Consider the following examples from Marelj (2011, 207):

(65) a. Lorens mrzi njegovog komšiju, a i Tristram takodje. (strict reading)
Laurence hates his neighbor but and Tristram too

b. Lorens mrzi svog komšiju, a i Tristram takodje. (sloppy reading)
Laurence hates self's neighbor but and Tristram too
'Laurence hates his neighbor and Tristram does too.'

The strict reading, indicating coreference (or, 'covaluation' in Marelj's terms), arises with the use of *njegov* in (65a) and the sloppy reading, indicating coindexation, is restricted to the use of *svoj* in (65b). (66) exhibits similar effects (Marelj 2011, 208):

(66) a. Samo Lusi poštuje njenog supruga. (coreference)

Only Lucie respects her husband

b. Samo Lusi poštuje svog supruga. (coindexation)

Only Lucie respects self's husband

(66a) entails that other women do not respect Lucie's husband, while (66b) entails that, unlike Lucie, other women do not respect their own husbands. Thus, when the pronoun does not violate Condition B it becomes perfectly available in contexts with coreferential interpretation, which reflexives in general cannot support.

However, any approach that attempts to seriously investigate issues of the pronoun/reflexive complementarity needs to accommodate cases of coreference in one way or another (see the discussion around (36) and (39))). It is well established that overlaps in the distribution of pronominal and reflexive forms often involve the representation of distinct interpretations, and (65) and (66) are just another example of that.[15] Structures like (64), on the other hand, are particularly interesting because they are not limited to coreference. That is, these structures allow pronouns in places in which reflexives are possible and at the same time they have bound variable interpretation:

(67) Context: Samo nekoliko autora je juče predstavilo svoje najnovije knjige. Recimo,

Only few authors are yesterday presented self's latest books For instance

'Only a few authors presented their latest books yesterday. For instance,'

Čomski$_i$ i Lasnik$_j$ su predstavili njihovu$_{i+j}$ najnoviju zajedničku knjigu dok

Chomsky and Lasnik are presented their latest joint book while

Polard$_k$ i Sag$_m$ nisu.

Pollard and Sag are not

'Chomsky$_i$ and Lasnik$_j$ presented their $_{i+j}$ latest (joint) book while Pollard$_k$ and Sag$_m$ did not.'

In the first conjunct, the pronoun is assigned the same referent as 'Chomsky and Lasnik', whether it is bound by 'Chomsky and Lasnik' or coreferent with it. The interpretation of the pronoun in the elided VP is crucial, though. The elided *njihovu* can be assigned the same referent as 'Pollard and Sag', that is, the sentence can have the sloppy interpretation. In order to license ellipsis, I assume a 'parallelism' requirement that the elided element be identical (in certain relevant respects) to the 'antecedent' VP. Thus, (64) and (67) have bound variable interpretation and are not cases of obligatory coreference.

The crucial difference between (64)/(67) and (62a) is that the subjects in (64)/(67) are coordinated NPs and therefore interpreted as plural. SC reflexives *sebe* and *svoj* are underspecified for φ-features, e.g., they do not have distinct singular and plural forms. SC pronouns, on the other hand, do have separate singular and plural forms (e.g., *njegov* 'his' and *njihov*' their'). I will assume that this morphological contrast makes SC pronouns much more accessible for the so-called 'collective interpretation' of the antecedent. At the same time, SC reflexives tend to support 'distributive readings'.[16] The adjective *zajednički* 'joint' in (64)/(67) unambiguously presupposes the collective reading of the

subject antecedent and the pronominal form becomes clearly available. The approach of Safir (2004) is directly relevant for these examples, since one of its general goals is to explain why pronouns may express reflexive relationships if the morphology of a language has no dedicated reflexive form available. On this approach, if a language happens not to have a dedicated reflexive form, then by the FTIP, introduced in the previous section, the pronoun will display the familiar absence of Condition B effects. For instance, Danish simple reflexives cannot have plural antecedents while Norwegian ones in most dialects can, with the result that in Danish a plural pronoun replaces the reflexive for the local bound reading, as predicted by the competitive theory (Safir 2004, 72 – originally from Vikner 1985):

(68) a. *John* læste *sin*/**hans* artikel.

John read SIN/his article

b. *John og Mary* læste **sine/deres* artikler.

John and Mary read SIN/their paper

In Danish the SIG form for possessives, *sin*, only obviates pronouns when its antecedent is singular. In (68b) Danish *sin* is not acceptable and hence does not obviate the plural nonanaphoric pronoun.[17]

I believe that this analysis can successfully account for the SC facts in question as well. Since SC reflexives are underspecified for number, and since they strongly tend to support distributive interpretation, the pronoun becomes available exactly when collective interpretation is forced. In other words, due to their morphological simplicity (namely, the fact that they do not have plural forms) SC reflexives become irrelevant for

the purposes of competition with pronouns when the antecedent has the collective reading. Collective interpretation does not, however, entail the lack of a bound variable interpretation in any way, and it is therefore not surprising that the structure in (67) licenses the sloppy reading.

It is clear that SC facts support competition approaches to pronouns and reflexives, and the question is then whether the competition in question is sufficiently significant to derive Condition B as well, which is one of the ultimate goals of such approaches. I believe, given the facts discussed so far, that Condition B is a principle of its own in SC and that it cannot be dispensed with. At the same time, the data above strongly suggest that pronouns and reflexives do compete in this language, and that Condition B often camouflages effects of that competition, which become visible exactly in situations in which Condition B is not violated. For instance, in contrast to (67), (69) is ungrammatical because it violates Condition B on this approach, which makes it impossible to conclude anything about the relation between pronouns and reflexives:

(69) *Čomski$_i$ i Lasnik$_j$ su predstavili njih$_{i+j}$ (zajedno).

Chomsky and Lasnik are presented them (together)

'Chomsky and Lasnik presented themselves.'

One could possibly come up with a context that would support a non-bound variable reading, and make this sentence (relatively) acceptable, but this would then be a case of coreference and would not tell us much about the principles that underlie the competition between anaphors and pronouns. Admittedly, the present analysis, which insists on the existence of both binding conditions and a competitive principle such as the FTIP in SC,

does not seem very parsimonious and conceptually appealing, but it accounts for many fairly complex SC facts in a rather straightforward way.

As shown throughout this and the previous section, however, one non-trivial advantage of the present approach is that it provides an explicit means of dealing with different levels of (un)acceptability of a wide range of examples. If a language employs both the FTIP and the binding conditions it is natural to expect that constructions which violate both of these principles should in such a language come out worse than those which violate just one of them. For example, as already mentioned, (70b) violates both Condition B and the FTIP and is therefore worse than (70a) which violates only the latter.

(70) a. ??Jovan$_i$ je udario njegovog$_i$ prijatelja.

John is hit his friend

'John$_i$ hit his$_i$ friend.'

b. **Jovan$_i$ je udario njega$_i$.

John is hit him

'John$_i$ hit him$_i$.'

At the same time, we expect violations of just one condition to improve more easily in the right context than structures which violate more than one thing. As already shown, this holds for cases in which only the FTIP is violated (e.g., (36)). However, structures which violate only, say, Condition B behave similarly. Given that binding conditions are irrelevant for coreference as long as there is enough pragmatic force that would support interpretations distinguishable from the bound variable reading it is expected that constructions like (71) below, which by assumption violate only Condition B (not the

FTIP), should improve relatively easily in the right context. The example in (72) illustrates this point:

(71) *Jovanov$_i$ papagaj ga$_i$ je juče ugrizao.
John's parrot him is yesterday bitten.
'John$_i$'s parrot bit him$_i$ yesterday.'

(72) Znam šta Milanov magarac i Jovanov papagaj imaju zajedničko. Milanov
I know what Milan's donkey and John's parrot have common. Milan's
magarac je juče ugrizao Jovana, a i *Jovanov* papagaj *ga* je ugrizao.
donkey is yesterday bitten John and but John's parrot him is bitten
'I know what Milan's donkey and John's parrot have in common. Milan's donkey bit John yesterday and John's parrot bit him too.'

On the bound reading '*Jovanov* papagaj *ga* je ugrizao' would be interpreted as (John (λx (x's parrot bit x))), which is clearly not the intended meaning of (72), in which John is bit by both his own parrot and Marko's donkey. Finally, although coreference is possible in special contexts, pragmatic accommodation of this sort is irrelevant for bound readings; i.e., violations of the binding conditions and/or the competitive principle are always characterized by the lack of bound interpretation.

At this point an interesting example brought to my attention by an anonymous reviewer should be addressed:

(73) *Jovan* je razočaran. *Njegov* omiljeni papagaj *ga* je juče ugrizao.
John is disappointed His favorite parrot him is yesterday bitten
'John is disappointed. His favorite parrot bit him yesterday.'

It is possible in (73) for *njegov* 'his' and *ga* 'him' in the second sentence to refer to the same individual, i.e., *John* in this case, which is introduced in the preceding sentence. Yet it is not clear that this sentence should not violate Condition B (e.g., see (71) above). Another interesting property of (73) is that even though *njegov* 'his' and *ga* 'him' can refer to the same individual, the structure in question does not allow the bound interpretation. Consider first the example in (74):

(74) Jovanov$_i$ papagaj je juče ugrizao njegovu$_i$ majku, dok Markov papagaj nije.
John's parrot is yesterday bitten his mother while Marko's parrot is not
'John$_i$'s parrot bit his$_i$ mother yesterday, while Marko's parrot did not.'

Here, the sloppy reading under which Marko's parrot did not bite Marko's mother is allowed. However, (75) does not license the sloppy reading:

(75) *Jovan* je razočaran. *Njegov* papagaj *ga* je juče ugrizao, dok Markov papagaj nije.
John is disappointed His parrot him is yesterday bitten while Marko's parrot is not
'John is disappointed. His parrot bit him yesterday, while Marko's parrot did not.'

(75) minimally differs from (73), but the sloppy reading is not possible. That is, the only reading available here is that Marko's parrot did not bite John. The sentence cannot mean that Marko's parrot did not bite Marko. Although (73) is not predicted by the present system, the fact that this structure is good but at the same time limited to coreference (even without any special context) shows that it is quite exceptional and therefore maybe a result of some independent principles of SC. In light of this, I leave a more detailed exploration of (73)/(75) for future work.[18]

Finally, the analysis developed here also accounts for the contrast between (76) and (77). Following Reinhart and Reuland (1993) (see also Marantz 1984), we can assume that the two PPs in these two constructions are not of the same type: in (76) the pronoun and the antecedent are thematic arguments, whereas in (77) PP is not selected by the verb; it is a separate predicate, and forms a binding domain for the pronoun on its own.

(76) **Jovan$_i$ se raspravlja sa njim$_i$.

John argues with him

'John$_i$ argues with him$_i$.'

(77) ??Jovan$_i$ je osetio zmiju nedge blizu njega$_i$.

John is felt snake somewhere near him

'John$_i$ felt a snake somewhere near him$_i$.'

(76) violates both Condition B and the competitive principle, while (77) violates only the latter, since *sebe* 'self' is available. When the pronoun is embedded in an NP, (76) significantly improves, since as predicted it no longer violates Condition B. (77), on the hand, does not violate Condition B to begin with and embedding the pronoun in an NP does not change its status significantly.

(78) ??Jovan$_i$ se raspravlja sa njegovim$_i$ ocem.

John argues with his father

'John$_i$ argues with his$_i$ father.'

(79) ??Jovan$_i$ je osetio zmiju nedge blizu njegove$_i$ kuće.

John is felt snake somewhere near his house

'John$_i$ felt a snake somewhere near his$_i$ house.'

3.3 Anti-Subject Orientation of Pronouns

The preceding discussion raises some issues regarding a frequent proposal that pronouns in SC and Slavic are "anti-subject oriented" and that an independent principle of grammar is responsible for this. The anti-subject orientation of pronouns has been discussed by many (e.g., Vikner 1985, Hestvik 1992, Hellan 1988, Burzio 1989, 1991, Safir 2004, among others) and the central empirical motivation for this proposal is that in many languages pronouns are required to be free from closest subjects whereas English pronouns are not. At the same time, in these languages pronouns may be anteceded by a subject if another subject or a tensed clause boundary intervenes, which seems to be true of SC and many Slavic languages as well. Therefore the term 'anti-subject orientation' comes from the fact that there is no requirement of being free from a higher object, even if this object is closer than the subject. On this approach the fact that the pronoun in (80) cannot be anteceded by the subject is due to an independent principle that prevents the pronoun from being anteceded by the subject.

(80)*Jovan$_i$ je predstavio Marka njemu$_i$.

John is introduced Marko him

'John$_i$ introduced Marko to him$_i$.'

There are two essential aspects that characterize the anti-subject orientation proposal, each of which is falsified here: (i) pronouns cannot be anteceded by subjects, and (ii) that fact that they cannot be anteceded by subjects is completely independent from the distribution of reflexives. Structures like (64) immediately challenges the first claim since pronouns can clearly be anteceded by subjects. Also, pronouns may be anteceded by the

subject exactly when the reflexive is unavailable, which argues against the statement (ii) above. The distinction between (81) and (82) is useful; the pronoun competes with the reflexive only in (81), and exactly when the reflexive is excluded from the competition due to the subject-orientation requirement, the sentence becomes acceptable (e.g., (82)).

(81) ??Jovan$_i$ je juče ugrizao njegovog$_i$ brata.

John's is yesterday bitten his brother

'John$_i$ bit his$_i$ brother yesterday.'

(82) ✓Jovanov$_i$ papagaj je juče ugrizao njegovog$_i$ brata.

John's parrot is yesterday bitten his brother

'John$_i$'s parrot bit his$_i$ brother yesterday.'

This strongly suggests that the anti-subject orientation of pronouns is contingent on the availability of subject-oriented reflexives. Another fact that appears accidental under the anti-subject orientation view is that (83) and (84) differ in acceptability:

(83) **Marko$_i$ voli njega$_i$.

Marko loves him

'Marko loves him.'

(84) ??Marko$_i$ voli njegovog$_i$ psa.

Marko loves his dog

'Marko loves his dog.'

On the analysis advocated here, on the other hand, this contrast is not surprising. The SC facts discussed in this paper thus provide strong support to approaches on which the anti-subject orientation of pronouns is essentially governed by the syntactic distribution of

strictly subject oriented anaphors (e.g., Hellan, 1988, Burzio 1989, 1991, Safir 2004), and not by some independent principle.

4. Summary and Outlook

In this paper, I have argued for the following points:

(85) a. SC lacks DP.

b. SC possessors are adjuncts c-commanding out of the NP they modify.

c. SC employs Conditions B and C, and a competitive principle which are defined as follows:

(i) Condition C: An R-expression is pronoun-free. (Lasnik 1989)

(ii) Condition B: A pronoun is free in its own predicate domain (i.e., phrase). An element is free if it is not c-commanded by a coindexed NP.

(iii) A. Form to Interpretation Principle (FTIP): (Safir 2004)

If x c-commands y, and z is not the most dependent form available in position y with respect to x, then y cannot be directly dependent on x.

B. SIG-SELF >> pronoun-SELF >> SIG >> pronoun >> R-expression.

C. Hierarchy in SC: sebe >> pronoun >> R-expression.

I have focused in particular on the interaction between (85a) and (85b), on the one hand, and (85c), on the other, by emphasizing the relevance of a number of binding contrasts between SC and English for the structure of their respective nominal domains. I have argued that the absence of DP in SC and the ability of its possessives to c-command out of the NP they modify are the key factors underlying these binding contrasts. It is important to clarify again that by arguing against the UDPH I have not argued against the

DP hypothesis in general; i.e., the central argument is that the DP hypothesis does not apply to all languages, and that this point of variation can, if properly investigated, elucidate the nature of a number of other, seemingly unrelated type of phenomena (in this particular case binding). Also, the assumption that SC as an article-less language lacks DP together with my general agenda should not be mistaken for an attempt to claim that languages without articles completely lack any kind of functional projections in the nominal domain or that functional projections in general cannot be null (i.e., that they must have some morphological exponent). As in other similar works (e.g., Baker 2003, Bošković 2005, 2008, 2010, Chierchia 1998, Despić 2011 etc.), my more general point has been to show that UG offers a wider range of possibilities than suggested by the UDPH, where SC and English stand at the opposite sides of the spectrum. One should, however, not take this proposal to imply that all DP-less languages should behave like SC with respect to binding, since the SC phenomena discussed here are also governed by the peculiar nature of prenominal (adjectival) possessives (which even within the Slavic family display significant variation (e.g., Corbett 1987)); i.e., it is certainly possible that possessives in certain DP-less languages are not be adjoined to NP, but occupy its Spec (or even complement) position.

In the second part of the paper I have focused on fleshing out the principles that underlie the binding properties of SC. I have argued that in addition to Conditions B and C, which rule out derivations not conforming to them, SC also employs a competitive principle, namely Safir's (2004) FTIP, which regulates the distribution of reflexives, pronouns and R-expressions. I have proposed a version of Condition B for SC which

implies distinct binding domains for pronouns and reflexives and presented arguments in favor of Lasnik's (1989) definition of Condition C.

References:

Abney, Steven. 1987. English noun phrase in its sentential aspect. Doctoral dissertation. MIT, Cambridge, MA.

Avrutin, Sergey. 1994. Psycholinguistic investigations in the theory of reference. Doctoral dissertation. MIT, Cambridge, MA.

Baker, Mark. 2003. *Lexical categories; verbs, nouns, and adjectives*. Cambridge: Cambridge University Press.

Bašić, Monika. 2004. Nominal subextractions and the structure of NPs in Serbian and English. M. A. thesis. University of Tromsø.

Bobaljik, Jonathan. 1999. Adverbs: the hierarchy paradox. *Glot International* 4: 27-28.

Bošković, Željko. 2005. On the locality of left branch extraction and the structure of NP. *Studia Linguistica* 59: 1-45.

Bošković, Željko. 2008. What will you have, DP or NP? In *North East Linguistic Society (NELS)* 37, ed. by Emily Elfner and Martin Walkow, 101-114. Amherst: University of Massachusetts, Graduate Linguistic Student Association.

Bošković, Željko. 2009. More on the no-DP analysis of article-less languages. *Studia Linguistica* 63: 187-203.

Bošković, Željko. 2010. On NPs and clauses. Ms., University of Connecticut.

Burzio, Luigi. 1989. On the non-existence of disjoint reference principles. In *Rivista di Grammatica Generativa* 14:3-27.

Burzio, Luigi. 1991. The morphological basis of anaphora. *Journal of Linguistics* 27:81-105.

Burzio, Luigi. 1996. The role of the antecedent in anaphoric relations. In *Current issues in comparative grammar*, ed. by Robert Freidin, 1-45. Dordrecht: Kluwer.

Chomsky, Noam 1981. *Lectures on government and binding; the Pisa lectures*. Foris Publications Holland.

Chomsky, Noam. 1986a. *Barriers*. Cambridge, MA: MIT Press.

Chomsky, Noam 1986b. *Knowledge of language.* New York: Praeger.

Chierchia, Guglielmo. 1998. Reference to kinds across languages. *Natural Language Semantics* 6: 339-405.

Cinque, Guglielmo. 1994. On the evidence for partial N-movement in the Romance DP. In *Paths towards universal grammar*, ed. by Guglielmo Cinque, Jan Koster, Jean-Yves Pollock, Luigi Rizzi, Raffaella Zanuttini, 85-110. Washington, DC: Georgetown University Press.

Corbett, Greville. 1987. The morphology/syntax interface: evidence from possessive adjectives in Slavonic. *Language* 63:299-345.

Corver, Norbert. 1992. Left branch extraction. In *North East Linguistic Society (NELS)* 22, ed. by Kimberly Broderick, 67-84. Amherst: University of Massachusetts, Graduate Linguistic Student Association.

Despić, Miloje. 2011. Syntax in the absence of determiner phrase. Doctoral dissertation. University of Connecticut, Storrs, CT.

Ernst, Thomas. 2002. *The syntax of adjuncts*. Cambridge: Cambridge University Press.

Escobar, Linda and Anna Gavarró. 2001. The acquisition of clitics and strong pronouns in Catalan. In *Clitics in phonology, morphology and syntax*, ed. by Birgit Gerlach and Janet Grijzenhout, 161-180. Amsterdam: John Benjamins.
Evans, Gareth. 1980. Pronouns. *Linguistic Inquiry*. 11:337-362.
Fiengo, Robert and James Higginbotham. 1981. Opacity in NP. *Linguistic Analysis* 7:395-421.
Fukui, Naoki. 1988. Deriving the differences between English and Japanese. *English Linguistics 5*: 249-270.
Grodzinsky Yosef and Tanya Reinhart. 1993. The innateness of binding and coreference. *Linguistic Inquiry* 24: 69-101.
Hamann, Cornelia, Odette Kowalski and William Philip. 1996. The French 'delay of principle B' effect. In *BUCLD Proceedings 21*, ed. by Elizabeth Hughes, Mary Hughes and Annabel Greenhill, 205-219. Sommerville, MA: Cascadilla Press.
Heim, Irene. 1998. Anaphora and semantic interpretation: a reinterpretation of Reinhart's approach. In *The interpretative tract*, ed. by Uli Sauerland and Orin Percus, 205-246. MIT Working Papers in Linguistics 25. Cambridge, MA: MIT, MIT Working Papers in Linguistics.
Hellan, Lars. 1988. *Anaphora in Norwegian and the theory of grammar*. Dordrecht: Foris.
Hestvik, Arild. 1992. LF movement of pronouns and anti-subject orientation. *Linguistic Inquiry* 23: 557-594.
Huang, C.-T. James. 1983. A note on the binding theory. *Linguistic Inquiry* 14: 554-561.
Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
Kayne, Richard. 2002. Pronouns and their antecedents. In *Derivation and explanation in the minimalist program*, ed. by Samuel D. Epstein and Daniel T. Seely, 133-166. Oxford. Blackwell.
Kiparsky, Paul. 2002. Disjoint reference and the typology of pronouns. In *More than words: A festschrift for Dieter Wunderlich*, ed. by Ingrid Kaufmann and Barbara Stiebels, 179-226. Berlin: Akademie Verlag.
Lasnik, Howard. 1989. *Essays on Anaphora*. Dordrecht: Kluwer.
Marantz, Alec. 1984. *On the Nature of Grammatical Relations*. Cambridge, MA: MIT Press.
Marelj, Marijana. 2011. Bound-variable anaphora and left branch condition. *Syntax* 14: 205-229.
May, Robert. 1985. *Logical Form.* Cambridge, MA: MIT Press.
McKee, Cecile. 1992. A comparison of pronouns and anaphors in Italian and English language acquisition. In *Language Acquisition* 2:21-54.
Padilla, Jose. 1990. *On the definition of binding domains in Spanish: evidence from child language.* Dordrecht: Kluwer.
Pollard, Carl and Ivan Sag. 1992. Anaphors in English and the scope of binding theory. *Linguistic Inquiry* 23: 261-303.
Pollard, Carl and Ivan Sag. 1994. *Head-Driven Phrase Structure Grammar*. Stanford, Calif.: CSLI Publications.
Progovac, Ljiljana. 1998. Determiner phrase in a language without determiners. *Journal of Linguistics* 34: 165-179.
Reinhart, Tanya. 1983. *Anaphora and semantic interpretation*. London: Croom Helm.
Reinhart, Tanya and Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24: 657-720.
Safir, Ken. 2004. *The syntax of anaphora*. Oxford: Oxford University Press.
Saito, Mamoru. 1994. Additional-wh effects and the adjunction site theory. *Journal of East Asian Linguistics*, 3: 195-240.

Scott, Gary-John. 2002. Stacked adjectival modification and the structure of nominal phrases. In *Functional structure in DP and IP*. ed. by Guglielmo Cinque, 91–120. Oxford: Oxford University Press.

Sells, Peter. 1986. Coreference and bound anaphora: A restatement of the facts. In *North East Linguistic Society (NELS)* 16, ed. by Stephen Berman, Jae-Woong Choe, and Joyce McDonough, 434-446. Amherst: University of Massachusetts, Graduate Linguistic Student Association.

Shaer, Benjamin. 1998. Adverbials, functional structure, and restrictiveness. In *North East Linguistic Society 28 (NELS 28)*, ed. by Pius N. Tamanji and Kiyomi Kusumoto, 391-408. Amherst: University of Massachusetts, Graduate Linguistic Student Association.

Stevanović, Mihailo. 1962. *Gramatika srpskohrvatskog jexika za više razrede gimnazije.* Četvrto izdanje. Obod: Cetinje.

Szabolcsi, Anna.1981.The possessive construction in Hungarian: a configurational category in non-configurational language. *Acta Linguistica Academiae Scientiarum Hungaricae* 31: 261-289.

Szabolcsi, Anna.1983. The possessor that run away from home. *The Linguistic Review* 3: 89-102.

Szabolcsi, Anna. 1992. Subordination: articles and complenentizers. In *The structure of Hungarian*, ed. by István Kenesei and Csaba Pléh, 123-137. Approaches to Hungarian 4. Szeged: JATE.

Takahashi, Daiko. 1994. Minimality of movement. Doctoral dissertation. University of Connecticut, Storrs, CT.

Takahashi, Masahiko. 2011. Some theoretical consequences of case-marking in Japanese. Doctoral dissertation. University of Connecticut, Storrs, CT.

Uriagereka, Juan. 1988. On government. Doctoral dissertation. University of Connecticut, Storrs, CT.

Vikner, Sten. 1985. Parameters of binder and binding category in Danish. *Working Papers in Scandinavian Syntax* 23: 1-61.

Williams, Edwin. 1994. *Thematic structure in syntax*. Cambridge, MA: MIT Press.

Zlatić, Larisa. 1997. The structure of the Serbian noun phrase. Doctoral dissertation. University of Texas, Austin, TX.

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[*]For helpful discussion of the material presented here and related ideas I am particularly grateful to Jonathan Bobaljik, Željko Bošković, Jon Gajewski, Jairo Nunes, Mamoru Saito, Yael Sharvit, Daiko Takahashi, Masahiko Takahashi, Susi Wurmbrand, as well as the audience at FASL 17 (Yale). The article has also benefited greatly from the comments of anonymous *LI* reviewers. For assistance with data collection I thank Đorđe Despić, Helena Despić, Igor Markićević and especially Alen Bešić. This material is based in part upon work supported by the National Science Foundation under Grant No. NSF SBE #0920888 (PI Boškovic, Co-PI Gajewski). Any errors are my own responsibility.

[1] See Bošković (2008, 2010) for detailed discussion (which due to space considerations I cannot go into here), including illustrations of the generalizations in (2) and the precise definitions of the phenomena referred to in these generalizations (e.g. what is meant by scrambling in (2c) is long-distance scrambling of the kind found in Japanese; see also Uriagereka 1988 and Corver 1992 regarding (2a)).

[2] Alternatively, they can also be treated as multiple Specs of NP (see Bošković 2005, for a detailed discussion of this alternative).

[3] This is on the assumption that adjectives do not take NPs as their own complements, as proposed in Abney (1987).

[4] A number of plausible proposals about structures like (10) and (11) have been made and my goal here is not assess different theories; rather, the aim is to briefly summarize some of the arguments which in Kayne's analysis motivate the structure in (9).

[5] A paper-and-pencil questionnaire was administered to 25 informants through electronic mail. Subjects were asked to evaluate the sample sentences on a five-grade scale, ranging from totally unacceptable through three intermediate levels to fully acceptable. Grammaticality judgments collected in this survey directly support the claim made in this paper. 20 speakers find cases like (12)/(14)/(16) completely unacceptable, while 5 of them find them unnatural but possible in certain contexts (In Section 3 I discuss contexts in which these examples become acceptable, since it is an issue that is directly relevant to my proposal). 24 speakers, on the other hand, find cases like (13)/(15)/(17) completely unacceptable. One speaker finds them marginally possible only in context where *njegov* receives emphatic stress. The overall picture is that such constructions may become relatively acceptable with emphatic stress, suggesting that notions like contrastive focus/topic may affect grammaticality judgments to a certain degree. However, in out-of-the-blue contexts these constructions are clearly unacceptable, which obviously is not true for English, and this is the point of contrast that this study focuses on.

[6] It could be argued that the ungrammaticality of (12)/(14)/(16) might be due to the fact that the pronoun in these examples is a clitic, and that clitics usually refer to an already established discourse referent. The question is then whether the Condition B-like effects in constructions of this type are really a violation of Condition B or some other, pragmatic principle. After all, Fiengo and Higginbotham (1981) observe that even in English (i) is ungrammatical when the pronoun *him* is unstressed and reduced to '*im*.

(i) * John$_i$ read [$_{DP}$ books about 'im$_i$].

Also, pronominal clitics are known to sometimes alter binding possibilities (e.g., Kayne 2002) and it is generally accepted that there is no Delay of Condition B effect in language acquisition in languages with clitic pronouns (e.g., Escobar and Gavarró 2001, Hamann, Kowalski, and Philip 2002, McKee 1992, Padilla 1990). This phenomenon, which is sometimes referred to as the Clitic Exemption Effect (CEE) also seems to show that clitics/weak pronouns may behave differently with respect to Condition B effects. The speakers that I have tested, however, find examples like (ii) below equally ungrammatical (or even more): for 21 of them cases like (ii) are completely unacceptable, while 4 of them find them marginally possible with emphatic stress on the pronoun *njega*. This almost exactly mirrors the (un)acceptability of (12)/(14)/(16) (see footnote 5). The issue of emphatically stressed pronoun does not arise in these examples, since clitics cannot bear (emphatic) stress.

(ii) *Kusturicin$_i$ najnoviji film je zaista razočarao njega$_i$.
Kusturica's latest film is really disappointed him

Note finally the ungrammaticality of (12)-(17) cannot be due to the type of verb used; i.e., these constructions are equally unacceptable despite the fact that *razočarati* 'to disappoint' is a psych verb, in contrast to *ugristi* 'to bite' and *udariti* 'to hit'.

[7] The proposal that SC NP modifiers are adjuncts is by no means new; see e.g., Bošković (2005) and Zlatić (1997).

[8] See also Fukui (1988) for relevant discussion of Japanese.

[9] For a detailed discussion of these matters, including alternative ways of avoiding the binding condition violations in (12)-(17) see Despić (2011: Chapters 2 and 4); for a discussion of similar issues in Japanese see Takahashi (2011).

[10] When asked to compare cases like (26) with cases like (27)-(28), my informants reported the following judgments: 16 speakers find constructions like (26) to be less degraded than those in (27), while 17 speakers find them less degraded than those in (28); the rest of informants do not think that there is much difference between them. In general, the informants judged constructions like (26) as unnatural and unacceptable, but no informant found them worse than the type of examples given in (27)-(28). To indicate that they are in this respect worse than (26), I mark (27)-(28) here in a somewhat unconventional way with **.

[11] The coreference reading could ultimately be available for (39), but it requires much more pragmatic force than (36).

[12] A number of different types of proposals have been made to derive the strict subject orientation of certain reflexives (e.g., via movement, φ- feature under specification etc.) and most of them are directly compatible with the main points of this discussion; i.e., I don't see that my main points would be affected by making any particular choice among these alternative approaches. See Despić (2011), Zlatić (1997), and references therein for Condition A and reflexives in SC; see also Despić (2011: Chapter 3) for extensive discussion of a cross-linguistic correlation between definiteness marking and reflexive pronouns and its implications for the Binding Theory.

[13] Note also that it is expected on this approach that (51) which violates only the FTIP would become more easily accessible in the right context (see (36) in the previous section) than (53) which violates both the FTIP and Condition C (e.g., (39)).

[14] Probably the most compelling argument against a coargument approach to the Binding Theory concerns ECM constructions.

(i) *John$_i$ belives him$_i$ to like Kathy.

An approach to Condition B violations based on a constraint on coreference between coarguments encounters difficulty with (i) because *him* is an argument of *like*, and *John* is an argument of *believe*: *John* and *him* are not coarguments, yet (i) is ungrammatical. Reinhart and Reuland (1993) argue that such cases are not Condition B violations per se, but violations of separate syntactic condition on the formation of A-chains. It is impossible to evaluate the strength of this argument in SC, simply because SC lacks ECM (and more generally raising) infinitives.

[15] See Safir (2004; section 3.3.3) for an overview of strategies for apparent noncomplementarity of distribution, which among other things includes cases in which interpretations are distinct.

[16] See Avrutin (1994) for a discussion of similar examples in Russian.

[17] Note that on the present approach there would be no Condition B violation in (68).

[18] Given my assumptions about the FTIP, the right prediction here is that if no anaphor is possible as the object in the antecedent clause of the second sentence in (75), then (75) should permit a bound reading and hence a sloppy reading under ellipsis, contrary to fact. Thus, in this sense the exceptional behavior of (75) is a problem for my account, but no more that it is for any alternative approach (to the extent that any other approach could explain it together with all the other facts discussed in the paper, within an internally consistent set of assumptions). As for why this construction has only the coreferential reading I can at this point only speculate that this might have something to do with how pronouns are updated in discourse in languages like SC. It might be the case that when the R-expression *Jovan* is introduced in the first sentence of (75), both the possessive pronoun and the object pronoun of the next sentence establish a coreference relation with it independently, giving rise to the coreference interpretation. Adequately engaging this proposal, however, is a project I need to leave to future work; it remains open whether, or in what way, the exceptional behavior of (73)/(75) reflects anything more fundamental.