The Free Word Order Phenomenon

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Its Syntactic Sources and Diversity

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Introduction

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1. The free word order phenomenon: Its diversity and syntactic sources

The articles in this volume deal with the "free word order" or "scrambling" phenomenon from both empirical and theoretical perspectives. The free word order phenomenon is still an unsettled issue. It is open to debate how it is to be analyzed and how its parametric variation is to be explained. The articles contribute to the understanding of the phenomenon by exploring its diversity with respect to languages such as German, Japanese, Kannada, Malayalam, Serbo-Croatian, Tongan, and Turkish, and by discussing its syntactic sources in terms of adequate syntactic analysis.

The examination of the phenomenon within generative grammar goes back to Ross (1967). Ross proposed the rule of scrambling as an operation of the stylistic component and not of core syntax. Hale (1983, 1992), who discussed free word order in non-configurational languages such as Warlpiri, observed that those languages show a cluster of properties. Besides free word order, they allow for *pro*-drop and discontinuous constituents. Hale, based on this observation, proposed to analyze free word order as a base property, i.e. as a result of various base-generated word orders. In contrast, it has been argued that "non-standard word orders" in other languages such as German and Japanese are derived from the basic word order by syntactic movement (see, for example, Saito 1985, Tada 1993 for Japanese, and Webelhuth 1989, Müller and Sternefeld 1994, Grewendorf and Sabel 1999 for German), although more refined base-generation analyses have been proposed to explain the free word order phenomenon in these languages as well (see, for example, Kitagawa 1990, Bošković and Takahashi 1998 for Japanese, and Bayer and Kornfilt 1994, Fanselow 2001 for German). For those who pursue the movement approach, the examination and the analysis of the properties of the relevant movement operation have become an important research topic.

Within the Minimalist Program (Chomsky 1995, 2000), it is assumed that the core syntactic computational system has two interfaces, the conceptual-

intentional (LF) and the articulatory-perceptual (PF). Against this background, it is still debated in the current research whether scrambling is an operation in the core syntax or if it is a PF-stylistic rule that falls outside of core syntax. If scrambling is a PF-operation, a question arises why it shares the properties of standard syntactic movements with respect to binding and extraction (Saito 1985, 2003; Mahajan 1990; and the contributions in this volume). On the other hand, if it is a syntactic operation, it should be explained why it is apparently semantically vacuous, subject to total reconstruction, as has been argued in Saito (1989). (For discussion of this last aspect, see the papers by Miyagawa, Sabel, and Saito in this volume.)

Once it is assumed that free word order is to be accounted for in the core syntax, 'optionality' becomes an important issue. The base-generation analyses presuppose that the phenomenon is inherently optional: different word orders obtain as different choices for the base structure are made. (See, for example, Hale 1983, Bošković and Takahashi 1998, Fanselow 2001, and Bošković this volume.) On the other hand, if freedom in word order results from a syntactic movement operation, a question arises with respect to its trigger. Under the minimalist assumption that movement applies only for reasons of checking morphological features (Last Resort), there should be a syntactic reason for this movement. Scrambling, then, could be analyzed as a feature-driven movement operation, triggered either by an EPP-/scrambling-feature, or by a topic-/focus-feature. An alternative would be that scrambling is a special kind of movement operation exempted from having a driving force, as argued by Fukui (1993), Saito and Fukui (1998), and Saito (2003). Note that only under the latter analysis is scrambling an optional movement operation in the theoretical sense. Within a feature-based analysis, the term "free" or "optional" word order is used only descriptively. The articles by Grewendorf, Jayaseelan, Kornfilt, Miyagawa, Otsuka, and Sabel in this volume examine a variety of possibilities for the trigger of scrambling. The paper by Saito, on the other hand, develops the analysis of scrambling as optional movement.

It has been claimed that scrambling applies for reasons of Case-checking (for example, Kitahara 2002). But this approach leaves unaccounted for the scrambling of those elements such as PPs that need not be checked for Case. It has also been argued that DP-scrambling applies for semantic reasons, i.e. that a scrambled DP is interpreted differently from a DP in situ (for example, de Hoop 1992, Diesing 1992). However, as has been pointed out by Ruys (2001), and Haider and Rosengren (2003), among others, the reading assigned to a scrambled constituent is often available in the base order as well. Finally, it has been hypothesized that scrambling applies in order to

achieve information structure effects. Under this analysis, the scrambled element represents a topic or a focus. This possibility is discussed in several articles in this volume, including those by Grewendorf, Jayaseelan, Miyagawa, Otsuka, and Sabel.

Another important issue is the binding properties of the scrambled phrases, a research topic initiated by Webelhuth (1989) and Mahajan (1990). Although it concerns the base-generation approach as well, the issue is phrased within the movement approach as whether scrambling patterns with NP- or wh-movement, i.e. whether it has A- or A'-movement properties. As the issue has implications for the landing site of scrambling (e.g., whether the movement is adjunction or targets a specifier position), it relates closely to the problems of optionality and trigger of scrambling mentioned above. The articles by Grewendorf, Jayaseelan, Miyagawa, Sabel, and Saito in this volume consider this issue. The paper by Murasugi and Kawamura, on the other hand, examines the acquisition pattern of scrambling in comparison with passive, and reports that Japanese-speaking children acquire the A'-properties of scrambling quite early.

The crosslinguistic examination of the topics mentioned above highlights the diversity in the properties of the free word order phenomenon. This leads to a complex of important questions concerning the parametric properties of languages. First, why is scrambling observed in some languages but not in others? It has been claimed that the possibility of scrambling is connected to the head parameter. (See, for example, Fukui 1993, Haider 1997, and Saito and Fukui 1998.) One idea is that scrambling freely applies to the left in left-branching languages such as Japanese, where complements are to the left of their selecting heads. This analysis is taken up in Kornfilt's article, which discusses rightwards scrambling in Turkish, an SOV language. (See also Bailyn 2002 and Bošković this volume, for relevant discussion on leftward scrambling in Slavic (SVO) languages). Others have claimed that *pro*-drop is a necessary condition for scrambling to obtain (see Sabel this volume). Still others have entertained the possibility that overt Case morphology is the necessary property relevant for the availability of scrambling (see, for example, Bošković this volume).

The second question is why we observe various differences among the free word order languages. Differences can be found, for example, with respect to the locality restrictions on scrambling. (See Müller and Sternefeld 1994, Sabel 1997, and Grewendorf and Sabel 1999 for discussion.) Scrambling out of finite clauses is possible in languages such as Hindi, Japanese, Korean, Mohawk, Persian, Russian, and Serbo-Croatian, but not in Dutch, German, Polish, and Warlpiri. Languages such as German, Dutch, Mohawk,

and Warlpiri have obligatory overt wh-movement and very restricted wh-scrambling. In this respect these languages contrast with Hindi, Japanese, Korean, Persian, and the Slavic scrambling languages. Similar differences can be found with respect to discontinuous constituents. For example, Warlpiri shows discontinuous DPs (adjectives can split, and it is also possible to split demonstratives), whereas DP discontinuity is not permitted as freely in Mohawk (adjectives can split, but it is normally impossible to have split demonstratives). (See Baker 2001, Pensalfini 2004, and Bošković this volume.)

These differences suggest that free word order is not a homogeneous phenomenon and that there is no single macro-parameter that is responsible for the absence/presence of the phenomenon. (See, for example, Hale 1992, Baker 2001, and Pensalfini 2004 for analyses of different types of free word order languages, i.e. configurational and nonconfigurational free word order languages.) If this is the case, detailed examination of each language would be necessary to uncover the source, or more precisely, the sources of the free order phenomenon. This is precisely what is pursued in the papers contained in this volume.

2. The contributions in this volume

The present volume addresses the topics mentioned above. Several authors offer new ways of analyzing the free word order phenomenon within the Minimalist Program. Among the concrete issues discussed are those related to the trigger for scrambling, the possibility of assimilating scrambling to topicalization or focus movement, and the technical implementation of the operation to prevent unwarranted derivations. Other topics that are investigated include the typology of scrambling languages, the factors that determine the presence/absence of scrambling in a language, and also the timing of the acquisition of scrambling within the course of first language acquisition.

On the empirical side, a variety of phenomena are discussed and analyzed. Among the topics are the proper analysis of rightward scrambling (as opposed to leftward scrambling) in Turkish, the A-/A'-nature and the trigger of scrambling in Tongan, and left-branch extractions and DP-Split in Slavic. More traditional issues such as the differences between remnant and non-remnant scrambling in German, and the reconstruction properties of Japanese scrambling are also examined. In addition, effects of information structure and locality constraints are discussed with respect to scrambling in German, Malayalam, and Tongan, for example.

We will close this introduction with short summaries of the articles contained in this volume.

2.1. Zeljko Bošković:
   Left branch extraction, structure of NP, and scrambling

This paper considers some possible accounts for the cross-linguistic variation regarding left branch extraction (LBE), focusing on adjectival LBE, and explores their consequences for the internal structure of noun phrases as well as the analysis of scrambling. Three possibilities are examined: the first is based on the phase system extended to noun phrases, the second on the existence of a cross-linguistic variation in the position of adjectives within a noun phrase, with some languages having the traditional NP-over-AP structure and others Abney's (1987) AP-over-NP structure, and the third on Bošković and Takahashi's (1998) analysis of scrambling. The first two imply that languages that allow LBE of adjectives do not have DP and the third that the availability of scrambling is a prerequisite for allowing LBE. The paper also explores the role of Case in licensing scrambling, suggesting that Case does the job of D in scrambling languages.

2.2. Günther Grewendorf:
   The discourse configurationality of scrambling

This paper argues that what has been called "scrambling" is really a cover term for several different kinds of movements that are subject to different restrictions and target different positions in the clause structure. More specifically, it shows that the so-called German middle field has a much richer structure than traditionally assumed, including two layers of topic and focus projections the internal configuration of which roughly corresponds to what Rizzi (1997) has proposed for the left periphery. The author argues that this allows us to solve several problems with the traditional analyses of scrambling, such as the fact that contrary to standard generalizations on German scrambling, there are well-formed examples of remnant "scrambling" and "scrambling" out of finite clauses.

2.3. K. A. Jayaseelan and R. Amritavalli:
   Scrambling in the cleft construction in Dravidian

In a cleft sentence in Dravidian, the focus and the copula (moving together) appear to be able to "float" into the cleft clause that expresses the presupposition. The analysis proposed is that elements from the cleft clause move to topic positions to the left of the focus. Actually, only shortdistance clefts allow these extractions (i.e. allow this type of scrambling). The authors suggest that long-distance clefts employ relativization in order to extract the focus from the cleft clause. This accounts for the absence of "floating" with long-distance clefts, as relative clauses are known to be barriers for extraction. In short-distance clefts, the cleft clause is just an IP, which does not count as a phase. Therefore 'direct' extractions to focus and topic positions outside the clause are predicted to be possible.

2.4. Jaklin Kornfilt:
   Asymmetries between pre-verbal and post-verbal scrambling in Turkish

"Scrambling" can apply both pre-verbally and post-verbally in Turkish, a head-final language. This paper shows, against some previous claims, that the two "scrambling fields" differ in certain respects. For example, post-verbal constituents c-command the pre-verbal (scrambled and nonscrambled) ones, but not vice-versa. Further, scrambled constituents in the pre-verbal field are placed in a hierarchical structure, while those in the post-verbal field form a flat sequence. The paper proposes that post-verbal constituents are indeed moved there by rightward adjunction (rather than being post-verbal due to leftward remnant movement), and that there is an operation that changes the hierarchical post-verbal adjunction structure into a flat one. Finally, rightward scrambling is argued to apply post Spell-Out, i.e. that it is a PF operation rather than a feature-driven syntactic movement.

2.5. Shigeru Miyagawa:
   EPP and semantically vacuous scrambling

The claim that Japanese scrambling is a completely optional operation is often made on the basis of Saito (1989), which argues that (long-distance) scrambling is 'semantically vacuous' because it can be undone at LF. If it is semantically vacuous, it cannot be obligatory, hence it must be optional. The author argues that the evidence Saito gave could be explained in other

ways that do not lead us to the conclusion of semantic vacuity. Moreover, he maintains that instances of scrambling that are ostensibly 'completely undone' at LF are, in fact, not undone at all. Where there is reconstruction, it is the familiar kind often observed with wh-movement in languages such as English. This leaves us with a view of scrambling very much like the original Mahajan (1990) view: it is either A'- (wh-movement) or A- (raising) movement. According to the paper, there is, however, one narrow domain in which Saito appears to be correct – that scrambling appears to be completely undone. It is a domain – rather unusual and even odd – in which universal conditions on movement are completely ignored. It remains to be seen whether this operation is real movement, or if it is some sort of a stylistic PF 'reordering'.

2.6. Keiko Murasugi and Tomoko Kawamura:
On the acquisition of scrambling in Japanese

This paper presents a theoretical and experimental study on the acquisition of scrambling and its reconstruction properties. Hayashibe (1975) reports that scrambling is acquired quite late in the development of grammar. Otsu (1992), on the other hand, reports that 3–4 year old children interpret scrambled sentences correctly when appropriate contexts are provided. Against this background, it was shown in Murasugi (2000) that 2–4 year old Japanese-speaking children interpret scrambled sentences correctly when they are made to pay proper attention to the Case markers. This paper develops this experimental study and demonstrates that those children who assign the correct predicate-argument structures to scrambled sentences exhibit knowledge of their reconstruction properties as well. The authors argue, based on this result, that children have knowledge not only of scrambling but also of its syntactic properties at a very early stage of language acquisition. They also point out that passive is acquired much later than scrambling, and discuss this fact in relation with Borer and Wexler's (1987) A-chain maturation hypothesis.

2.7. Yuko Otsuka:
Scrambling and information focus: VSO-VOS alternation in Tongan

Focusing on scrambling in Tongan, this paper shows that it has properties characteristic of A-movement and that the scrambled constituent must represent new information. It is analyzed as an obligatory movement to

SpecTP licensed by two features on T: EPP and information focus (cf. Miyagawa 2001, 2003 and Bailyn 2003, 2004). The apparent contradiction between this analysis and Diesing's (1992) Mapping Hypothesis is also discussed. Based on this discussion, the following generalization is put forward: if a certain property is encoded phonologically, morphosyntactic means to achieve the same effect is not employed, and vice versa. This proposal has implications for the research on focus-driven scrambling as well. It claims that information focus is associated with T and predicts that focus-driven scrambling exists only in languages that do not have a phonological means (e.g., stress) to realize focus.

2.8. Joachim Sabel:
String-vacuous scrambling and the Effect on Output Condition

Different versions of the Principles and Parameters framework make different predictions with respect to the derivation of potentially derivationally ambiguous word orders. For example, if Move-α applies freely, it is often impossible to predict whether scrambling and NP-movement have taken place in German passive sentences. In contrast, if economy principles restrict the number of possible derivations, we can clearly predict whether scrambling and NP-movement have applied or not. Syntactic tests are used to show that potentially derivationally ambiguous word orders of the relevant type are in fact not ambiguous but only compatible with one derivation. This result is derived from the 'Effect on Output Condition' (EOC) (Chomsky 1995, 2000, 2001). It provides support for the minimalist version of the Principles and Parameters framework with economy constraints, as opposed to a conception of grammar in which 'Move' applies freely. It is shown that scrambling and NP-movement that have no effect at the PF-interface are impossible, i.e., an expletive *pro* and a scrambling-feature can enter the numeration only if they have an effect on the PF-output. It is argued further that certain instances of scrambling have an LF-effect. This constitutes evidence for a syntactic (feature-checking) approach of scrambling and against the view that scrambling is always a purely stylistic PF-phenomenon.

2.9. Mamoru Saito:
Further notes on the interpretation of scrambling chains

A proposal was made in Saito (2003) to explain the A/A'-properties of scrambling by means of cyclic interpretation. This paper attempts to extend

this analysis so that the effects of scrambling on quantifier scope and NPI licensing are properly captured. The central claim is that Full Interpretation in the sense of Chomsky (1986) applies cyclically to the information unit syntax transfers to semantics upon the completion of each phase. This makes it possible to account for the clause-boundedness of QR as well as the obligatory reconstruction of quantified phrases and NPIs preposed by long scrambling. In the course of the discussion, those examples of NPI scrambling that have been cited as counter-examples to radical reconstruction are explained away. At the end, suggestions are made for the ways syntax transfers information to semantics. Information concerning the role of each element, that is, whether it is an argument, a predicate, a modifier, an operator, or a quantifier, is sent to semantics upon the completion of each phase. On the other hand, information related to the anaphoric relation of NPs is sent to semantics independently of phase, still in the course of the derivation in the case of Condition (A) and at the termination of the derivation in the case of Condition (C).

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Left branch extraction, structure of NP, and scrambling

Željko Bošković

The paper examines the phenomenon of left branch extraction (LBE), focusing on adjectival LBE, and explores consequences of a proper analysis of LBE for the theory of locality, the internal structure of NP, and the phenomenon of scrambling. In addition to the two existing analyses of LBE (an ECP analysis and a remnant movement analysis), I consider three new analyses of LBE, one based on the phase-based locality system, which extends the phase system from clauses to NPs, one based on the existence of cross-linguistic variation regarding the position of adjectives in the traditional NP, with some languages having the traditional NP-over-AP structure, others having Abney's (1987) AP-over-NP structure, and one based on Bošković and Takahashi's (1998) analysis of scrambling. The first two analyses rely on the claim that languages that allow LBE of adjectives do not have DP and the third one on a correlation between LBE and scrambling, where the availability of scrambling is a prerequisite (but not sufficient) for allowing LBE. Although there are reasons to disfavor some of the analysis considered in the paper, ultimately I will not be able to provide a completely conclusive way of teasing apart all the alternative analyses. In this respect, the paper reflects our present understanding of LBE, which is currently too rudimentary to put us in a position to conclusively argue for one analysis of the phenomenon.[1] Rather, the goal of the paper is more modest: My hope is that the exploration of the alternative analyses of LBE in this paper will bring us closer to understanding the nature of this rather mysterious and somewhat forgotten phenomenon, spurring further research on it, as well as help us shed light on a number of important issues concerning the theory of locality, the internal structure of NP, and the nature of scrambling. Regarding scrambling, a correlation between LBE and a particular view of the structure of the traditional NP which allows the DP layer to be missing from an NP (namely, the generalization that languages that allow LBE do not have DP), and a correlation between LBE and scrambling (namely, the generalization that the availability of scrambling is a prerequisite for LBE), which are

argued for in the paper, will lead me to posit a correlation between the availability of scrambling and the absence of DP in a language, where the latter is a prerequisite for the former. An account of the correlation will be presented based on Bošković and Takahashi's (1998) analysis of scrambling. I will also explore the role of Case in the phenomenon of scrambling, suggesting Case does the job of D in scrambling languages.

The paper is organized as follows. After introducing LBE, in section 2 I summarize two existing accounts of LBE. In section 3 I turn to new approaches to LBE. Section 4 is the conclusion.

1. Introduction

Ross (1986: 127) proposed the Left Branch Condition (LBC), which blocks movement of the leftmost constituent of an NP. The condition has been used in the literature to block extraction of determiners, possessors, and adjectives out of NP.[2]

(1)   a.   *$Whose_i$ did you see [t_i father]?
      b.   *$Which_i$ did you buy [t_i car]?
      c.   *$That_i$ he saw [t_i car].
      d.   *$Beautiful_i$ he saw [t_i houses].
      e.   *$How\ much_i$ did she earn [t_i money]?

As already noted by Ross, some languages, e.g., Latin and most Slavic languages, allow LBE, as illustrated by Serbo-Croatian (SC) (2) and Latin (3). (Pied-piping of the LBE remnant is also possible. (3) is taken from Uriagereka 1988.)

(2)   a.   *$Čijeg_i$ si vidio [t_i oca]?*
           whose are seen   father
           'Whose father did you see?'

      b.   *$Kakva_i$ si kupio [t_i kola]?*
           what-kind-of are bought   car
           'What kind of a car did you buy?'

      c.   *Ta_i je vidio [t_i kola].*
           that is seen   car
           'That car, he saw.'

d. *Lijepe$_i$ je vidio [t$_i$ kuće].*
   beautiful is seen   houses
   'Beautiful houses, he saw.'

e. *Koliko$_i$ je zaradila [t$_i$ novca]?*
   how-much is earned   money
   'How much money did she earn?'

(3)   *Cuiam$_i$ amat Cicero [t$_i$ puellam]?*
      whose loves Cicero   girl
      'Whose girl does Cicero love?'

This paper investigates LBE focusing on adjectival LBE, with the goal to use it to shed light on the structure of NP, in particular, the structural position of AP within the traditional NP.[3] My point of departure is Uriagereka's (1988: 113) observation that LBE is allowed only in languages that do not have overt articles. Thus, Bulgarian, which Uriagereka mentions, and Macedonian, the two Slavic languages that have overt articles, differ from SC, Russian, Polish, and Czech, which do not have overt articles, in that they disallow LBE (see (4)–(5)). Notice also that Latin differs from modern Romance languages in that it allowed LBE and did not have overt articles.[4]

(4) a. **Kakva$_i$ prodade Petko [t$_i$ kola]?*   [Bulgarian]
        what-kind-of sold   Petko   car
        'What kind of a car did Petko sell?

     b. cf. *Kakva kola$_i$ prodade Petko t$_i$?*

     c. **Čija$_i$ xaresva Petko [t$_i$ kola]?*
        whose likes   Petko   car
        'Whose car does Petko like?'

     d. *Čija kola$_i$ xaresva Petko t$_i$?*

     e. **Novata$_i$ prodade Petko [t$_i$ kola].*
        new-the   sold   Petko   car
        'The new car, Petko sold.'

     f. *Novata kola$_i$ prodade Petko t$_i$.*

(5) a. *Kakva_i   prodade Petko [t_i kola]?   [Macedonian]
       what-kind-of sold   Petko   car

   b. cf. *Kakva kola_i prodade Petko t_i?*

   c. *Čija_i   ja bendisuva Petko [t_i kola]?
      whose it like   Petko   car
      'Whose car does Petko like?'

   d. *Čija kola_i ja bendisuva Petko t_i?*

   e. *Novata_i ja prodade Petko [t_i kola].
      new-the it sold   Petko   car

   f. *Novata kola_i ja prodade Petko t_i.*

2.   Existing accounts of LBE

2.1. The ECP analysis

Corver (1992) proposes an ECP analysis that captures Uriagereka's insight.[5] He adopts the DP hypothesis, following Abney (1987). However, in contrast to Abney, for whom A takes NP as its complement, Corver adjoins AP to NP. Consider first Corver's analysis of (1). Regarding (1b–c), Corver assumes that *that* and *which* are D^0, hence cannot undergo XP movement, the underlying assumption being that LBE is a phrasal movement (see, however, Bošković 2001: 232–238). As for (1a), Corver assumes that *whose* is not a constituent, hence cannot undergo movement. (He places *who* in SpecDP and *'s* in D^0.)[6] For Corver, AP LBE violates the ECP. His analysis of AP LBE is based on Chomsky (1986a) ECP system. Since it does not quite work, following Bošković (2005) I will modify it to enhance its empirical coverage. The following is thus a modified version of Corver's analysis.

Consider (6), which involves adjectival LBE under the standard assumption that movement out of DP must proceed through SpecDP (see, e.g., Boeckx 2001, 2003a, Gavruseva 2000, Giorgi and Longobardi 1991, Ormazabal 1991, Stowell 1989, Szabolcsi 1994, and Torrego 1987, who all build on the insights of Cinque 1980), and (7), a *that*-trace configuration.

(6) [_DP AP_i [_D' D [_NP t_i [_NP

(7) [_CP who_i [_C' that [_IP t_i [_I'

The configuration in (6) resembles the *that*-trace configuration in (7). Corver suggests the two should receive a uniform account. In particular, he applies Chomsky's (1986a) rigid minimality account of the *that*-trace effect to (6). On Corver's analysis, AP cannot antecedent govern its trace in (6) because of D', a minimality barrier in Chomsky's (1986a) sense projected by D.[7] Consider now (8)–(11).

(8)   *Handsome$_i$ she saw [t$_i$ boys].

(9)   *Handsome$_i$ she saw that [t$_i$ boy].

(10)   Who$_i$ do you think [t$_i$ left]?

(11) *Who$_i$ do you think that [t$_i$ left]?

To account for the fact that both (8) and (9) are unacceptable we need to assume that both overt and null D project a minimality barrier. The null hypothesis (contra Chomsky 1986a) is then that the same should hold for both the overt and the null C. After all, the overt vs. null C/D distinction is really PF-based and should have no bearing on the syntax. It follows then that (8) contains a null D, which projects a minimality barrier, while (10) does not contain a null C. That is, the embedded clause in (10) is an IP, as argued in Bošković (1997), Doherty (1997) and Grimshaw (1997).

   Turning now to languages that allow LBE, Corver's analysis of such languages is crucially based on his claim that such languages do not have DP at all. Corver offers several arguments in support of his claim. I will take SC as the representative of this language group, applying Corver's discussion of Czech and Polish to SC.[8]

   First, SC does not have overt articles, which are the prototypical instantiation of D^0. SC does have lexical items corresponding to *that*, *some*, etc., as well as possessives. However, such items are morphologically adjectives in SC (see Zlatić 1998), as (12) shows with respect to a partial paradigm.

(12) a. *nekim   mladim   djevojkama*
       some.fem.pl.instr young.fem.pl.instr girls.fem.pl.instr.

   b. *nekih mladih djevojaka*
        fem.gen.pl.

Furthermore, in contrast to their English counterparts, the elements in question can occur in typical adjectival positions in SC, as shown in (13), where a possessive occurs in a predicative position of a copula construction. (English examples in (13)–(17) are given through glosses.)

(13) *Ova knjiga je moja.*
      *this book   is   my

Another English/SC contrast which indicates that SC Ds are actually adjectives concerns the fact that, in contrast to English, the elements in question can stack up in SC, just like adjectives.

(14) *ta   moja slika*
      *this my   picture

Moreover, their order is relatively free in SC, in contrast to English, where it is fixed. This is not surprising under the D-as-A analysis, since the relative order of adjectives is also relatively free.[9]

(15) *Jovanova skupa   slika   vs.   skupa   Jovanova slika*
      John's   expensive picture   *expensive John's   picture

(16) *tall angry men vs. angry tall men*

Another argument, not noted by Corver, concerns the impossibility of modifying a SC prenominal possessive with adjectival morphology (*bratov* in (17)) by a possessive.[10]

(17) **Moj   bratov   prijatelj   spava.*
      my.nom brother's.nom friend.nom   sleeps

This actually holds for adjectival modification of the possessives in question more generally, as shown in (18), which is not surprising given the claim that *moj* in (17) is an adjective. ((18) is acceptable only on the pragmatically implausible reading on which *bogati* modifies *konj* instead of *susedov*. A similar situation is found with multiple possessives.)

(18) **bogati susedov   konj*
      rich   neighbor's horse

Assuming that an adjective cannot be modified by a possessive or, more generally, an adjective, (17)–(18) can be easily accounted for if SC possessives under consideration are indeed adjectives.

Based on the above arguments, following Corver (1992) I conclude all "D"s are As in SC. SC, and the same holds for other Slavic languages allowing LBE, does not project DP on top of NP.

Let us now examine LBE in SC in light of this conclusion. Consider (19).

(19) *Lijepe$_i$*   *[$_{VP}$ t$_i$ [$_{VP}$ [$_{V'}$ gleda [$_{NP}$ t$_i$ [$_{NP}$ kuće]]]]].*
        beautiful   watches   houses
        'Beautiful houses, he/she is watching.'

Given the absence of D, the problem that arises in English (1d) (cf. (6)) does not arise in SC (19): there is no D to project a minimality barrier. A question arises why V does not project a minimality barrier, i.e., why V' isn't a minimality barrier for the NP-adjoined trace. I assume that adjunction to XP voids the minimality barrierhood of X, i.e. when Y adjoins to XP, the head of X does not project a minimality barrier for the Y-chain (see Bošković 1992).

Why can't adjunction to DP provide an escape hatch from the minimality effect of D in (1d), as in (20)?

(20) **Beautiful$_i$ he [$_{VP}$ t$_i$ [$_{VP}$ saw [$_{DP}$ t$_i$ [$_{DP}$ [$_{D'}$ D [$_{NP}$ t$_i$ [$_{NP}$ houses]]]]]]].*

Chomsky's (1986a) ban on adjunction to arguments provides an answer (for evidence for the ban, see Bošković 1997, 2004 c, McCloskey 1992, and Motapanyane 1994). Adjunction to DP in (20) is an instance of adjunction to an argument, hence disallowed. Is the ban on adjunction to arguments violated in SC (19)? The answer is no, if the ban is applied derivationally, i.e. at the point of adjunction. (Murasugi and Saito 1994 make the same proposal concerning the ban on adjunction to adjuncts). Following Takahashi's (1994) approach to successive cyclicity, I assume movement of the AP in (19) does not start until the final target of the movement enters the structure.[11] At the point of adjunction, the relevant element is then not an argument in (19), in contrast to (20). More precisely, the object NP in (19) becomes an argument only when it merges with the V. However, adjunction to it occurs prior to this, hence it does not violate the derivational version of the ban on adjunction to arguments. On the other hand, under Takahashi's view of successive-cyclic movement, adjunction to the object in (20) takes place after the object has been integrated into the clausal structure (recall

that the AP undergoes movement only after its target, located above IP, enters the structure, a point at which the direct object has already been merged with the verb). (20) then involves adjunction to an argument even under the derivational interpretation of the condition in question.

I now turn to additional data concerning LBE discussed in Bošković (2005), showing how they can be accounted for under a Corver-style analysis. Notice first that LBE out of a complement of a noun, which I will refer to as deep LBE, is disallowed (See (21b). See also Corver 1992 for Polish and Czech.)

(21) a. *On je vidio [NP [N' prijatelja [NP njegove majke]]].*
           he is seen   friend   his   mother
           'He saw a friend of his mother.'

    b. * *Čije_i   je on vidio [NP [N' prijatelja [NP t_i majke]]]?*
           whose is he seen   friend   mother
           'Whose mother did he see a friend of?'

(21b) can be accounted for in the same way as English (20). Like D in (20), the higher N in (21b) projects a minimality barrier (N') for the LBE trace. We could try to void the minimality effect by adjoining the possessive to the higher NP. However, the adjunction would involve adjunction to an argument for the same reason the adjunction of AP to the direct object DP does in (20).

Interestingly, deep LBE becomes much better if the lower NP is moved outside of the higher NP. True, (22) is still somewhat degraded, but the reason for this is that extraction of genitive complements of nouns is generally not fully acceptable in SC (see Zlatić 1994), as shown in (23). What is important for our current purposes is that (22) is clearly better than (21b) in spite of the marginality of genitive NP extraction. Notice also that moving the whole higher NP remnant of deep LBE in front of the verb does not improve (21b), as shown in (24).

(22) *(?)?Čije_i je on [NP t_i majke]_j vidio [NP prijatelja t_j]?*

(23) *(?)?On je [NP njegove majke]_j vidio [NP prijatelja t_j]?*

(24) * *Čije_j je on [NP prijatelja [NP t_j majke]]_i vidio t_i?*

How can these facts be accounted for? The modified ECP analysis actually does not rule out (22), in contrast to (21b), since (22) does not have to in-

volve AP-adjunction to an argument, while (21b) does (to void the mini-mality effect).[12]

An obvious question that arises now is whether LBE and crosslinguistic variation regarding LBE can be accounted for without appealing to the ECP, given the well-known conceptual arguments against the ECP regarding the arbitrary nature of the notion of government. In section 3.1. I will present an updated locality account of LBE based on the current, phase-based approach to locality. Before doing that, I will examine an existing non-ECP account of LBE.[13] I will eventually conclude that LBE can be accounted for without employing the ECP, thus contributing to the continuing attempt to eliminate the mechanism of government from the grammar.

2.2. Remnant AP fronting

Adopting Abney's (1987) NP-as-complement-of-A analysis, Franks and Progovac (1994) present a remnant AP fronting analysis of LBE.[14] Under this analysis, traditional AP LBE actually involves remnant movement of the AP out of which the NP complement of A has moved.

(25) *[$_{AP}$ Crveno t_i]$_j$ je on kupio t_j [$_{NP}$ auto]$_i$.*
          red   is he bought   car
        'He bought a red car.'

As noted in Bošković (2005), the analysis faces several problems. According to Franks and Progovac, the NP *auto* in (25) right adjoins to IP. However, if this were correct we would expect the NP always to follow the adjunct in constructions like (26)–(27), which is not the case.

(26) *Crveno je on kupio auto prije tri   dana.*
         red   is he bought car   before three days
        'He bought a red car three days ago.'

(27) *?*Crveno je on kupio prije tri dana auto.*

The fact that the NP in question must precede the adjunct in (26)–(27) provides evidence against the rightward movement analysis. The alternative is to assume *auto* in (25) actually moves to the left, with remnant VP fronting (i.e. fronting of the VP out of which *auto* has moved) feeding remnant AP fronting, as a result of which *auto* ends up in a sentence final position in

spite of moving to the left.[15] A problem with this analysis is that constructions in which an NP complement of A clearly undergoes leftward movement are degraded, as shown in (28). This indicates that NP movement out of AP, the crucial ingredient of the remnant AP movement analysis, is not fully acceptable in SC, a fact which invalidates the remnant AP movement analysis.[16]

(28) *?*Kuće$_i$ je on vidio lijepe t$_i$.*
        houses is he seen beautiful
        'He saw beautiful houses.'

Another problem with the remnant movement analysis is that it is not obvious how it can account for a very interesting fact concerning LBE illustrated in (29)–(30) for SC and (31) for Russian.[17]

(29) a. *Visoke je on vidio djevojke.*
          tall   is he seen   girls
          'Tall girls, he saw.'

      b. *Lijepe   je on vidio djevojke.*
          beautiful is he seen   girls
          'Beautiful girls, he saw.'

(30) a. **Visoke je on vidio lijepe djevojke.*
      b. **Lijepe je on vidio visoke djevojke.*

(31) a. **Simpatičnye   emu   nravjatsja vysokie studenty.*
          good-looking he-dat likes   tall   students
          'He likes good-looking tall students.'

      b. *Simpatičnye emu nravjatsja studenty.*

Apparently, AP LBE is not possible in the presence of another AP (see, however, section 3.2.1.). I will refer to the construction in question as double AP LBE. (32) gives the structure of (30a) under the remnant AP movement analysis.

(32) **[$_{AP}$ Visoke t$_i$]$_j$ je on vidio t$_j$ [$_{AP}$ lijepe djevojke]$_i$.*

To account for this type of construction, Franks and Progovac (1994) propose that AP cannot undergo the movement that feeds remnant AP fronting.

In other words, AP cannot move out of AP. The question is why. We could revive the A-over-A Principle (Chomsky 1964), which would block AP movement out of AP. However, the principle has a number of undesirable consequences. E.g., it rules out (33a-b), which involve movement of an NP out of an NP. I conclude therefore that the A-over-A Principle has to be eliminated from the grammar.

(33)   a. *Who$_i$ did he see friends of t$_i$?*
        b. *John and Mary$_i$, he saw friends of t$_i$.*

Note also that although banning AP movement out of AP would suffice to account for (32), it does not say anything about (34), which does not involve AP movement out of AP.

(34)   **Visoke lijepe   on gleda   djevojke.*
         tall   beautiful he watches girls
         'He is watching tall beautiful girls.'

Under the remnant AP movement analysis, (34) can be analyzed in essentially the same way as (25), namely, as involving NP movement out of AP, followed by remnant AP fronting (the higher AP would undergo the movement). It is not clear how this derivation can be ruled out.

   The most serious problem for the Franks and Progovac (1994) account of the ban on double AP LBE is raised by constructions like (35).

(35)   a. *Novim$_i$ je on [$_{AP}$ zadovaljan [t$_i$ poslom]].*
         new   is he   content   job
         'He is content with his new job.'

        b. *Hrabrim/svojim$_i$ je on [$_{AP}$ vjeran [t$_i$ vojnicima]].*
         brave/his   is he   loyal   soldiers
         'He is loyal to brave/his soldiers.'

In (35), the adjective uncontroversially (i.e. under anybody's analysis) takes NP as its complement. Significantly, AP LBE from the NP complement of the adjective is possible. There seems to be no way of making a relevant distinction between (30) and (35) under the remnant AP movement analysis. Under this analysis, all the constructions in question involve a double AP LBE configuration, hence should be ruled out because they involve movement of an AP out of an AP (full AP movement out of AP in (30) and remnant AP movement out of AP in (35)), which is by hypothesis disallowed.

The problem is actually more general. It is difficult to see how one can make a principled distinction between (30) and (35) in Abney's system more generally, where the constructions in question have essentially the same structure in the relevant respects.

In addition to the problems noted above, it is not clear how several other properties of LBE can be captured under the remnant AP movement analysis. E.g., it is not clear how the relevance of the presence vs. absence of DP for LBE and the deep LBE data from section 2.1. can be captured under this analysis. The above discussion forces us to the conclusion that the remnant AP movement analysis cannot be maintained.

3.   New analyses of LBE

3.1. The phase analysis

In this section I consider a phase-based implementation of the DP/NP analysis (cf. Bošković 2005), in which, as in the ECP analysis, locality plays the central role.[18] As a preliminary attempt at a phase analysis, let us assume that DP, but not NP, is a phase, on a par with Chomsky's (1999) proposal concerning clausal phasehood that CP, but not IP, is a phase (see also Franks and Bošković 2001). Let us furthermore assume that D cannot have the escape hatch for successive-cyclic movement EPP feature. The assumptions seem to give us the desired result. Given the PIC, LBE out of DP in English is now ruled out.[19] It is still allowed in SC, given that the traditional NP is indeed an NP in SC. The analysis is, however, too strong when it comes to English. It undergenerates in that it rules out all phrasal movement out of DP in English, including (36).

(36) *Who do you like [$_{DP}$ [$_{NP}$ friends of t]]?*

Consider now the following revision of the phase analysis. DP is a phase and can have the escape hatch EPP feature, just like CP, which means that *who* in (36) can move through SpecDP. (I continue assuming that NP is not a phase, which holds for both English and SC.) Suppose, however, that AP movement from the NP adjoined position to SpecDP is ruled out.[20] This can be achieved by adopting a version of Bošković's (1994, 1997) and Saito and Murasugi's (1999) condition on chain links given in (37), which rules out movement that does not cross an XP boundary (see also Fukui 1993 and Grewendorf and Sabel 1999).[21]

(37) Each chain link must be at least of length 1, where a chain link from
       A to B is of length n if there are n XPs that dominate B but not A.

The reader is also referred to Abels (2003a,b) and Ishii (1999), where the
relevant movement (movement from the position adjoined to the comple-
ment of X to SpecXP) is ruled out via economy because it is considered to
be superfluous. More generally, according to these authors, when an ele-
ment X is already located in the minimal domain of a head (see Chomsky
1993 for the definition of minimal domain) it cannot move to another posi-
tion in the minimal domain of the same head, which is the case with the
movement we are interested in, given that movement is a last resort opera-
tion driven by the need to create a local configuration between two ele-
ments.[22]

   A particularly strong case against movement that is too local is made in
Grohmann (2000, 2003),who develops a full-blown theory of anti-locality
which rules movement from X to Y if X and Y are too close.[23] He gives a
host of empirical arguments for the anti-locality hypothesis and places it
within a broader theoretical context, arguing it follows from Bare Output
Conditions.

   In short, given the above discussion, the AP is too close to move to
SpecDP, movement illustrated in (38). Given the PIC, which rules out (39),
this prevents AP extraction out of DP, while still allowing (36), which ab-
stractly has the structure in (40).[24]

(38) *$[_{DP}$ AP$_i$ $[_{D'}$ D $[_{NP}$ t$_i$ $[_{NP}$ ....

(39) *AP$_i$ $[_{DP}$ $[_{D'}$ D $[_{NP}$ t$_i$ $[_{NP}$ ....

(40) $[_{DP}$ NP$_i$ $[_{D'}$ D $[_{NP}$ $[_{N'}$ $[_{PP}$ t$_i$

Turning now to SC (21)–(22), we can account for these data if we modify
the assumption that NP is not a phase, i.e. if we assume that NP headed by
a noun that takes a non-trace complement is a phase (see also Wurmbrand
and Bobaljik 2003 for the claim that whether or not a phrase functions as a
phase may depend on the structural environment in which it occurs, which
means that some projections are phases only in certain contexts). The as-
sumption immediately rules out (21b), repeated here, since the higher NP is
a phase. Movement from the position adjoined to its complement is then
ruled out by the PIC. (The AP (recall the possessive is actually an adjec-

tive) cannot move to the higher SpecNP for the same reason it could not move to SpecDP in (38).)

(41) * *Čije$_i$ je on vidio [$_{NP}$ prijatelja [$_{NP}$ t$_i$ [$_{NP}$ majke]]]?*
      whose is he seen   friend   mother
      'Whose mother did he see a friend of?'

What about (22)? The improved status of (22) can be accounted for given Chomsky's (1999) proposal that locality and the PIC are evaluated at the next phase level, which admittedly involves some look-ahead. Given this assumption, no problems arise with movement of the lower NP out of the NP in object position since at the point of evaluation, the object N does take a trace complement, hence its maximal projection is not a phase.

(42)   *(?)?Čije$_i$ je on [$_{NP}$ t$_i$ [$_{NP}$ majke]]$_j$ vidio [$_{NP}$ prijatelja t$_j$]?*

Notice also that LBE out of traditional A-taking-NP-as-complement constructions like (35) is readily accounted for given that AP is not a phase. ((35a) is repeated here as (43).)

(43)   *Novim$_i$ je on [$_{AP}$ zadovaljan [$_{NP}$ t$_i$ [$_{NP}$ poslom]]].*
       new   is he   content   job
       'He is content with his new job.'

Finally, (34) is also straightforwardly accounted for. The APs cannot be moved together since under the current analysis they do not form a constituent (in contrast to the remnant movement analysis). I assume that if APs undergo separate LBEs, the example is ruled out as a relativized minimality violation since an AP would move over an AP. (I return to double AP LBE below.)

    The phase analysis thus accounts for the full LBE paradigm. I conclude, therefore, that it is possible to account for LBE under the DP/NP analysis without appealing to the ECP. Recall, however, that the main motivation for the minimalist drive to eliminate the ECP and, more generally, the notion of government is the powerful nature and arbitrariness of the mechanisms in question. Given the assumptions we were led to adopt above, the phase analysis is starting to look almost as arbitrary as the ECP analysis.[25] While the complexity of the data to account for may justify the theoretical complications (i.e. appeal to some arbitrary assumptions), in accordance with

the minimalist drive to eliminate arbitrariness from the grammar, in the next section I discuss an alternative DP/NP analysis which does not employ either the ECP or phases (cf. Bošković 2005). While the analysis is more principled (i.e. it relies on fewer arbitrary assumptions) than either the ECP or the phase analysis, it is, however, based on a rather radical proposal concerning crosslinguistic variation regarding the structure of the traditional NP which will hopefully be confirmed by future work.[26]

3.2. The AP/NP analysis

There is a great deal of controversy concerning the position of AP within the traditional NP, which was brought about by the DP Hypothesis. The long-standing assumption has been that AP is dominated by NP. However, Abney (1987) argues AP actually dominates NP. More precisely, A takes NP as its complement. A great deal of effort has been spent in the literature trying to determine which of the two analyses is correct. I would like to suggest they are both correct, but for different languages. In particular, I suggest that in English, A indeed takes NP as a complement (the AP-over-NP pattern), as Abney argued. In SC, on the other hand, N takes AP as its Spec. (Assuming AP is adjoined to NP would also work. I will refer to the SC pattern as the NP-over-AP pattern.)[27] The presence/absence of DP determines which pattern a language will exhibit, DP languages exhibiting the AP-over-NP pattern and NP languages the NP-over-AP pattern. I assume that the AP-over-NP pattern is the default, i.e. it is specified as the canonical option in UG. Why is it that NP languages have to switch to the NP-over-AP pattern? To account for this, I make what seems to me to be a rather natural assumption, namely, that AP cannot be an argument (see also Stowell 1991: 209–210). In English-type languages, the assumption has no relevant consequences, since DP always dominates AP. However, this is not the case in SC-type languages, where, due to the lack of DP, AP would end up functioning as an argument if the AP-over-NP pattern were employed. It follows then that whenever DP is lacking in a language, NP has to cover AP, i.e. the NP-over-AP pattern has to be employed. We thus deduce the dependence of the AP-over-NP/NP-over-AP patterns on the presence/absence of DP in a language.

Let us now instantiate the proposed analysis with respect to an actual example. Suppose we want to merge *big* and *cars*. The question is which element will project. Given Chomsky's (1999) proposal that even pure

Merge is subject to Last Resort (see also Bošković 2002a and Hornstein 2001), either *big* or *cars* has the relevant selectional feature. In English it is *big,* and in SC *cars*.[28] The relevant difference between English and SC is thus instantiated in lexical terms, in line with the current research effort to reduce crosslinguistic variation to lexical differences.

The AP/NP analysis gives us the most principled account of the impossibility of AP LBE in English. The extraction is not possible because it would involve extraction of a non-constituent (the AP is not a constituent to the exclusion of the NP in English, as shown in (44).) The non-constituency problem does not arise in SC, where the NP dominates AP (see (45)).

(44)   [$_{DP}$ D [$_{AP}$ Adj [$_{NP}$ N]]]

(45)   [$_{NP}$ AP N]

The different behavior of English and SC with respect to AP LBE, as well as the relevance of DP for AP LBE, are thus straightforwardly accounted for. In fact, the AP/NP analysis provides us with a more principled account of the different behavior of English and SC in the relevant respect than the alternative analyses discussed above, given the overwhelming independent support for the crucial assumption that only constituents can undergo movement.

Independent evidence for the A/N difference in the headedness of the traditional NP in English and SC would provide particularly strong evidence for the AP/NP analysis of AP LBE. There actually is independent evidence to this effect.

A strong argument for A headedness of English NP, noted by Abney (1987), concerns (46).

(46)   *too big of a house*

The adjective appears to be assigning genitive Case to the following NP in (46), which is realized through *of*-insertion (see Chomsky 1986b on genitive Case-licensing), in accordance with the-A-taking-NP-as-complement analysis. On the other hand, in SC A *always* agrees in Case with the noun, which gets its Case externally from outside of the traditional NP, indicating a Spec-Head Agreement configuration, in accordance with the N-as-the-head analysis.

Another argument regarding Case concerns the following contrast between English and SC.

(47)   *The real him/*he will never surface.*

(48)   a. *Pravi on/*njega   se nikad neće   pojaviti.*
            real   he.nom/him.acc refl never neg+will show-up
            'The real him will never show-up.'

       b. *Vidjeli smo pravog njega/*on.*
            seen   are real   him.acc/he.nom
            'We saw the real him.'

Where overt Case morphology appears in English, as in (47), we can see that prenominal adjectives disrupt Case assignment (the pronoun bears (likely) default accusative instead of the expected nominative), which can be more straightforwardly accounted for under Abney's analysis, where the A can shield the pronoun from outside case assignment as an intervening head. As (48) shows, SC differs from English in the relevant respect, suggesting Abney's analysis should not be applied to SC. Notice also that the case of the pronoun in SC changes in an accusative environment (see (48b)), which indicates that we are not dealing with a default case in the SC construction under consideration (i.e., a pronoun following an adjective does not bear a default case in SC. Notice also that the unacceptable variants of (48a–b) remain unacceptable even if we use the agreeing adjectival forms (*pravog njega* in (48a) and *pravi on* in (48b).)[29]

    Consider now the following ellipsis data.

(49)   **I hate political problems, but I hate social even more.*

(50)   **Je déteste les problèmes politiques, mais je déteste les sociaux*
        I   hate   the problems political   but I   hate   the social
        encore plus.   [French]
        even   more

(51)   *Ja mrzim političke probleme, a   socijalne   mrzim još više.* [SC]
        I   hate   political problems but social   (I) hate   even more

Under Abney's analysis, the impossibility of eliding a noun modified by an adjective in English (49) and French (50) can be interpreted as indicating that A cannot license the ellipsis of its complement NP.[30] The contrast between English and French (49) and (50) and SC (51) then provides evidence against the A-as-the-head analysis of SC.[31] Notice also that, as the following

examples from Valois (1991) show, NP ellipsis in English can take place in the presence of NP-adjuncts, in contrast to adjectival modifiers.

(52)   a.   *I like John's pictures from three years ago, and I also like Bill's from last year.*

    b.   *I like John's picture by this photographer, and I also like Bill's by his sister.*

This fact provides strong evidence for the AP/NP analysis, which treats SC adjectival modifiers and NP-adjuncts in English in essentially the same way – they are both covered by NP, exhibiting the NP-over-AP/adjunct pattern (recall that the NP-over-AP pattern can be instantiated by either locating adjectives in SpecNP or by adjoining them to NP), but differently from adjectives in English, which exhibit the AP-over-NP pattern, i.e. they are not covered by NP.

    Abney (1987: 333) observes that in English, prenominal adjectives can determine the type of the noun phrase in a way that postnominal adjectives cannot, which follows if prenominal adjectives actually head the NP. To illustrate this, consider the contrast in (53).

(53)   a.   *I've known a dog smarter than Fido*.
    b.   *??I've known a smarter dog than Fido.*

When not embedded under a modal or a negative element, *know* selects non-predicative noun phrase as its object (see Bresnan 1973). The predicative nature of the prenominal comparative "percolates" to the noun phrase, in contrast to the postnominal comparative. Given that determining the features of the enclosing phrase is a property typical of heads, it follows that in English, prenominal A heads the "NP". Significantly, SC contrasts with English in the relevant respect.

(54)   a.   *Znao   sam pametnijeg psa od   Fida.*
     known am   smarter   dog than Fido
     'I've known a dog smarter than Fido.'

    b.   *Znao sam psa pametnijeg od Fida.*

Given Abney's reasoning, these data should be interpreted as indicating that, in contrast to English, the prenominal A does not head the "NP" in SC.

The data thus provide additional evidence for the NP-over-AP analysis for SC.[32]

Abney (1987: 340) observes that superlatives must precede descriptive adjectives in English. (Comparatives behave like superlatives in the relevant respect.)

(55)   a. *the big fancy car*
     b. **the big fanciest car*
     c. *the fanciest big car*

Abney gives a selection-based analysis of these data: The superlative takes AP as its complement, not the other way round. (Note that under Abney's analysis, multiple AP constructions involve A's taking APs as complements.) Significantly, SC differs from English in the relevant respect.

(56)   a. *?velika najskuplja   kola*
       big   most-expensive car
     b. *najskuplja velika kola*

Given Abney's analysis of the English data, the contrast can be accounted for if no complementation relation is involved between the relevant elements in SC. (Note that under the NP-over-AP analysis, multiple APs are located in multiple specifiers of NP.)[33]

Admittedly, some of the arguments for the different behavior of English and SC regarding the position of AP are not very deep and/or are based on phenomena that are ill understood. However, the sheer number of arguments (more precisely, the fact that arguments for the A-as-the-head analysis of English routinely fail in SC, where the data are exactly opposite of what is predicted by this analysis) provides evidence that the AP/NP analysis is on the right track. Probably the strongest argument for different behavior of English and SC-type languages in the relevant respect comes from certain data regarding the ban on double AP LBE, which I have left unexplained so far. (The argument concerns a contrast between SC and Bulgarian, an English-type language.) I turn to it in the next section.

3.2.1. Double adjective LBE

Recall that, as shown in (30) ((30b) is repeated in (57)), adjectival LBE in multiple A-as-a-modifier constructions (i.e. double AP LBE) is disallowed, in contrast to simple adjectival LBE, as in (29), and adjectival LBE in A-as-the-head constructions, as in (35).

(57)   *Lijepe   je on vidio visoke djevojke.
        beautiful is he seen tall   girls
        'He saw beautiful tall girls.'

In this section I provide an explanation for the impossibility of double AP LBE. I will continue to assume the NP-over-AP pattern for SC-type languages, instantiated through a multiple specifiers structure, as illustrated in (58).[34]

(58)   [$_{NP}$ AP [AP [$_{N'}$ N]]]

To account for the ban on double AP LBE, I appeal to McGinnis's (1998a,b) Principle of Lethal Ambiguity, which says that two elements equidistant from a target K are lethally ambiguous for attraction by K if they are featurally non-distinct.[35] Since multiple Specs of the same head are equidistant (see McGinnis 1998a,b), given the structure in (58), (57) involves Lethal Ambiguity.[36] Neither AP can then be attracted from outside of the NP in (57). The impossibility of double adjective LBE is thus accounted for. (The reader can verify that the account of (57) readily extends to *lijepe je on visoke djevojke vidio and *lijepe je on visoke vidio djevojke.)
    Interestingly, (57) improves significantly if *lijepe* is contrastively focused (bearing strong contrastive stress), as in the following context:

(59)   A: *I think that Marko said he saw ugly tall girls.*
        B: *Ma, ne, lijepe   je on vidio visoke djevojke, ne ružne.*
                  no beautiful is he seen tall   girls   not ugly

This is not surprising under the Lethal Ambiguity account. In the derivation in question, *lijepe* undergoes focus movement (SC is a focus-movement language, see Bošković 2002b and Stjepanović 1999), which means it bears the [+focus] feature. It is plausible that this feature makes it featurally distinct from *visoke*, which is not contrastively focused. Since Lethal Ambiguity

holds only for featurally non-distinct elements, this makes Lethal Ambiguity irrelevant to the derivation of (57) under consideration. (Below, for ease of exposition I will disregard the focus-movement derivation.)

Notice that double AP LBE is also possible when a wh-phrase is involved.

(60)   *Koje je Petar novo auto upropastio?*
        which is Petar new car   ruined
        'Which new car did Peter ruin?'

This is expected under the current analysis, since the [+wh] feature makes the fronted adjective featurally distinct from the non-fronted adjective, just like the [+focus] feature does in (59), making Lethal Ambiguity irrelevant. In fact, given the claim made in Bošković (2002b) and Stjepanović (1999) that SC wh-phrases may undergo focus movement rather than wh-movement (in the context in question), (60) may be another instance of the saving effect of focus on double AP LBE, hence accountable in exactly the same way as (59).

It is also worth noting that the contrast between (59), where the adjective that is left-branch extracted undergoes focus movement, and (57), where the adjective that is left-branch extracted undergoes scrambling, can be interpreted as providing evidence that, as argued by Saito (1994) and Saito and Fukui (1998), scrambling is not driven by feature checking, i.e. checking of some kind of a scrambling feature (see, e.g., Grewendorf and Sabel 1999, Kitahara 1997, Müller 1997, Sabel this volume, and Sauerland 1999 for scrambling-feature checking).[37] If it were, the scrambling feature should make the adjectives in (57) featurally non-distinct, which would render Lethal Ambiguity irrelevant in (57), on a par with (59).

Notice also that (35), which was difficult to differentiate from (57) under Abney's analysis of the structural position of AP, is readily accounted for since the APs are not equidistant in (35) (see Chomsky 1995 for definitions of equidistance). ((61) gives the relevant part of (35).)

(61)   [$_{AP}$ [$_{A'}$ A [$_{NP}$ AP [$_{N'}$ N]]]]

The proposed analysis thus accounts for the surprising contrast between (57) and (35). Crucial to the account was adoption of the traditional NP-over-AP structure for AP modification in SC, which provides strong evidence for the NP-over-AP analysis of adjectival modification, at least for