The DP category in articleless Slavic languages

This article deals with the existence of a DP layer on the top of NP. Based on evidence presented, (Left Branch Extraction, Zwicky’s test, Bošković’s Generalization, Noun/Pronoun Asymmetries, Status of Determiners and Evidence from acquisition studies), I conclude that the NP does not project further, and is a maximal projection in a nominal phrase.

Key words: DP; DP-hypothesis; Left Branch Extraction; NP; article; Slavic languages.

1. Introduction

In the traditional view of generative syntax it was strongly argued that the noun is the head of the Noun Phrase (NP) as in (1a). After Abney’s (1987) proposal of the Universal DP-hypothesis, syntacticians widely accepted the new functional category Determiner Phrase (DP) above the NP, as in (1b).

(1a)                (1b)

NP                  DP
   Spec       (Spec)      D'              NP
   N'                  D           D
       |                |              |
      N
Arguments in favour of the Universality of the DP-Hypothesis are numerous. Some of them are listed below:

- there is a syntactic parallelism between sentences and NPs

(2) a. \([S\, John\, builds\, spaceships]\)
   b. \([NP\, John’s\, building\, a\, spaceship]\) upset me.

- the semantic function of DP is to specify the reference of the Noun Phrase, as the function of TP would be to give a tense reference.
- parallelism related to case assignment is observable, i.e., T assigns nominative, while D assigns genitive
- in some languages there is possessor/possessed agreement in the NP, clearly indicating a need for a functional head in the NP (examples are from Abney 1987):

(3) a. \(az\, én\, kalap-om\) (Hungarian)
    \(the\, I{-}\, NOM\, hat-1SG\)

   b. \(a\, te\, kalap-od\) (Hungarian)
    \(the\, you{-}\, NOM\, hat-2SG\)

   c. \(a\, Péter\, kalap-ja\) (Hungarian)
    \(the\, Peter\, hat-3SG\)

Abney’s theory was proposed for English, which is a language with lexicalized determiners. But, the question remains whether in languages without overt determiners DP exists as a maximal projection of nouns (as argued by Leko 1999; Progovac 1998; Rappaport 1998), or the noun is the head of NP (argued by Bošković 2005; Corver 1992; Stjepanovic 1998; Zlatić 1998). In this paper I will comment on some of the accounts and conclude that NP in articleless Slavic languages is not governed by the D layer.

This article is organized in the following way: section 2 discusses the Left Branch Extraction phenomenon and how it affects the nominal phrase. Section 3 gives Zwicky’s test for determining the head of the phrase. In section 4 I comment on Bošković’s generalizations. Accounts for noun/pronoun asymmetries are discussed in section 5. The status of determiners is treated in sections 6. Finally, section 7 gives insight into the debate considering acquisition studies. Section 8 contains final remarks and section 9 concludes the paper.
2. Evidence from Left Branch Extraction

The strongest evidence against the Universality of DP-Hypothesis comes from the Left Branch Extraction (LBE) phenomenon. Corver (1992) states that only languages without determiners allow LBE out of NPs. In languages with determiners, LBE is impossible because D’ acts as a barrier for extraction. So, Serbian examples (4) and (5) are possible, while English (6) and (7) are not.

(4) Čiji si pojeo sendvič? (Serbian)

(5) Koji si pojeo sendvič? (Serbian)

(6) *Whose did you eat [t sandwich]?

(7) *Which did you eat [t sandwich]?

Corver also argues that the extraction of prenominal attributive APs is not possible because it violates the Empty Category Principle (ECP). His analysis is based on Chomsky’s (1986) account of the that-trace effect, shown in (8):

(8) a. *[DP AP_i [NP t_i [NP [N’ N ]]]]]
   b. *[CP who_i [C’ that [TP t_i [T’ T ]]]]

The impossibility of extracting attributive APs is, thus, accounted for by violation of ECP. AP cannot antecedent-govern its trace (see footnote 1)) because a minimality barrier D’ intervenes, i.e., this category contains a trace, a maximal projection containing the trace (NP), and a head i-commanding the trace, D^0.

Bašić (2004) notes that there is an important difference between adjectival LBE and a that-trace effect, and that is the prohibition of adjectival LBE both with overt and non-overt articles, while omitting that results in grammaticality of the sentence:

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1 The ECP requires traces to be properly governed, which requires them to be either lexically governed or antecedent governed. Since adjectival phrases are adjuncts they can never be lexically governed, the proper governors of adjectival traces will inevitably be local antecedents. The government relation can be blocked by two types of barriers:

- barriers created by the absence of L-Markings (so called L-barriers)
- barriers created by the presence of a closer governor (M-barriers or Minimality barriers).

M-barriers are defined as follows: A is a M-barrier for B if A includes B, D (an X^0 i-commander of B), and G (a maximal projection not necessarily distinct from A), where D i(mmediate)-commands B if the first constituent containing D contains A.
In order to explain the grammaticality, Corver proposes that both null determiner and overt determiner pose a minimality barrier. But the same conclusion cannot be applied to *that*-trace examples where the presence of *that* renders the sentence as ungrammatical.

If we consider that Slavic languages that do not have articles do not have a D layer that is projected above NP, we can argue that adjectival LBE is possible without violation of the ECP or of the Subjacency Condition. Non-existence of D in articleless Slavic languages well explains the LBE extraction, given that the only candidates for D position in Slavic languages (determiners and possessives) behave like adjectives (have adjectival declension, have a typical adjectival position in a sentence, and can be ordered relatively freely). Bašić asks why V’ in (10) does not act as a minimality barrier for the NP-adjoined trace:

(10) Brbljive, on [AP t₁ [VP [V’ mrzi [NP [AP t₁ ] [NP [N’goste ]]‎‎]]‎‎]] (Serbian) talkative he hates guests ‘(It is) talkative guests he hates’

For (10), Corver states that the adjunction to XP excludes the minimality barrierhood of X, which raises a problem concerning English, namely, why the adjunction to DP does not circumvent the minimality effect of D (11).

(11) *Talkative, he hates [DP t₁ D [NP t₁ [NP guests]]].

Corver rules out this possibility in English by employing Chomsky’s (1986) ban on adjunction to arguments. Chomsky claims that DP cannot act as a host for adjunction due to its argument status. But this constraint seems to be violated in Serbian example (10) because the AP is adjoined to NP, an argument type category. This is explained by Bošković’s derivational approach (see Bošković 2002 for more details).

Corver’s analysis however does not explain the grammaticality of sentences like these:

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2 Bašić finds that this case can be explained by assuming that in situations where the complementizer is null, the CP is not projected at all. Bošković (1997) offers arguments that the embedded clause in (9c) is an IP.
We have seen that the mechanism of government in grammar and the ECP as a part of it cannot explain certain data. In fact, this mechanism is arbitrary in the way it describes the data. Because of this state of affairs, many accounts emerged analysing LBE without involving the ECP. Thus Bošković (2005) proposes a solution which excludes the ECP analysis. He bases this solution on the fact that AP cannot be an argument. While in English-type languages this assumption has no relevant consequences (since DP always dominates AP), in Serbian, due to the lack of DP, AP would end up functioning as an argument. He proposes that whenever DP is lacking in a language, NP has to cover AP, i.e., the NP-over-AP analysis has to be employed. The difference between English-type languages and Serbian-type languages NPs is graphically represented in the diagrams in (13) and (14), respectively.

(13) English: *(The) happy cats*
3. Zwicky’s tests

One account in favour of D-less NP comes from Zlatić (1998). She shows, basing her claims on Zwicky’s (1985) analysis, that the following tests can be applied to determine the head of a given phrase:

(15)

1. The Morphosyntactic Locus
2. The Determinant Of Concord
3. The Obligatory Constituent
4. The Distributional Equivalent
5. The Subcategorizand
6. The Governor

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4 Bašić (2004) also has an exhaustive account that avoids the NP/DP analysis of the LB phenomenon.
7. The Semantic Argument

The Morphosyntactic Locus is the constituent on which morphosyntactic inflectional markings are located. When this test is applied to Serbian, we can conclude that the noun is the morphosyntactic locus, i.e., the head of the noun phrase.

The Determinant of Concord is defined as the constituent that determines the agreement features of other co-constituents. Slavic determiners inflect for case, number and gender features, agreeing in these features with the noun they specify.

If we consider the Obligatoriness criterion, the noun is the only obligatory constituent in the NP, and the determiner is always optional.

The noun is also a Semantic Argument, because it has the property of describing the type of object denoted by the noun phrase.

Some of the criteria cannot be applied to Serbian, since this language does not have obligatory determiners. (see Zlatić 1998: 4). These facts show that N and not D is the head of the phrase in articleless languages.

4. Bošković’s generalizations

In favour of the NP-analysis, Bošković (2007) presents a certain number of generalizations with concrete evidence. The majority of them are listed below (For more details see Bošković (2007)):

(16) Only languages without articles allow adjunct extraction out of TNPs (Traditional Noun Phrases)

This generalization was proposed by Stjepanović (1998). It is valid for Serbian as well as for Russian, which don’t have articles, but is invalid for Bulgarian which has them. An example of extraction of adjuncts out of the TNP is shown in (17) below:

(17) a. Iz kojeg grada je Ivan sreo [djevojke tij]? (Serbian)

b. *Ot koj grad Ivan [sretna momičeta tij]? (Bulgarian)
   ‘From which city did Ivan meet girls?’
(18) Only languages without articles may allow scrambling. Bošković lists languages which allow scrambling and lack articles (Serbian, Croatian, Latin, Japanese, Korean, Turkish, Hindi, Chukchi, Chichewa and Warlpiri) and languages that don’t allow scrambling and have articles (Romance languages).

(19) MWF (Multiple Wh Fronting languages) without articles don’t show superiority effects.

Bošković finds that MWF languages without articles don’t show superiority conditions, and those that do have articles all show the Superiority Effect in examples like (20)

(20) a. Koj kogo vižda/*Kogo køj vižda? (Bulgarian) who whom sees
b. Ko koga vidi/Koga ko vidi? (Serbian) who whom sees

(21) Only languages with articles may allow clitic doubling.

Bošković (2007) finds that clitic doubling is only present in Slavic languages with overt articles (Bulgarian and Macedonian) as in the example in (22):

(22) Ivan go napiša pismoto. (Macedonian) wrote

(23) Polysynthetic languages do not have articles.

All these generalizations show that parametric variation of some linguistic phenomena does exist between languages with and those without articles.

5. Noun/pronoun asymmetries

5.1. Progovac’s argumentation

Another account for the existence of a DP layer in Serbian comes from Progovac (1998). She offers evidence for the existence of D in Serbian by showing that the ordering of nouns and pronouns with some restrictive adjectives is fixed and asymmetrical, in the sense that nouns must follow and pronouns must precede these restrictive adjectives.
These noun/pronoun asymmetries suggest that pronouns in Serbian occupy a structurally higher position than nouns and that position is D (Progovac 1998: 165). On the basis of these assumptions Progovac concludes that Serbian projects DPs on top of NPs in argument positions.

My observation is that examples (25) and (26) are quite acceptable in Serbian, bearing only a slight emphatic marking. However, Progovac mentions one example (23) that sounds odd to Serbian speakers.

The correct order of words she gives is shown in (24)

My opinion is that the construction “Mi siti” is appositive by its nature and thus requires a further analysis.5

In the next two subsections I present other solutions for noun/pronoun asymmetries—Fukui’s D test and Lyons’ proposal for avoiding the analysis where the Determiner Phrase is included.

5 Note here that the English translation for Mi siti would be We, the full, the full being an adjectival noun, and thus this construction has appositive structure.
5.2 Fukui’s D test

One argument against Progovac’s noun/pronoun asymmetries comes from Bošković (2007) who says that pronouns in Serbian fail Fukui’s (1988) D test. Fukui argues that pronouns are Ds in English, but Ns in Japanese (a D-less language) based on the pronoun modification. He claims that only N-pronouns can be (non-appositively) modified. He shows Japanese pronouns (N-pronouns) can be modified, while English (D-pronouns) cannot be (with a few exceptions). Bošković also equates Japanese pronouns with Serbian ones.

(29) Jesi li ga video juče?
are Q him seen yesterday?

Jesam, ali je jučerašnji on baš nekako bio čudan. (Serbian)
am, but is yesterday’s he really somehow been strange.
‘Did you see him yesterday? *I did, but yesterday’s he was really somehow strange’

This example shows that Serbian pronouns are N-pronouns rather than D-pronouns, because they allow non-appositive premodification. This further means that their landing site is N⁰ and not D⁰.

5.3. Lyons’ (1999) DP as a definiteness phrase

Another account that seeks to settle the dispute between the camp that recognizes the universality of DP hypothesis and the one which argues in favour of the parametric variations in languages with and without determiners comes from Lyons (1999), who proposes that DP as a functional category need not exist. Instead he proposes other functional categories which dominate NP, namely Definiteness, Cardinality and Case.

The Definiteness projection would relate only to the definite article. Here the definite article would take SpecDP position, leaving the D empty for affixal determiners. This state of affairs allows the possibility of double definite determination, which exists in some Scandinavian languages.

The indefinite article, according to Lyons, is hosted in another functional projection—Cardinality (or CardP). The line of reasoning is that “definite” and “indefinite” are not merely polar opposites; rather, the concepts on which these two notions rely are qualitatively different.
The topmost projection is Case Phrase (KP) which fits very well with article-less Slavic languages. Considering the place of other determiners (such as demonstratives, possessives, etc.), Lyons argues that they should occupy the SpecD(efiniteness)P position, while numerals should be in SpecCardP. Also, unlike determiners, which can only be placed in DP or CardP, other determiners can occupy some lower projections that have adjectival status.6

Following this paradigm we can say that in Serbian, which does not grammaticalize definiteness, determiners are always in adjectival position. This means that the question posed by Progovac (1998) about the place of pronouns in Serbian may be resolved by adopting Lyons’ analysis. Namely they should be put in D(efiniteness)P, as there are languages, such as Russian and other Slavic languages without overt articles, which have DP with personal pronouns only, but not in full noun phrases (Lyons 1999: 325).

5.4 Conclusion

Summing up, the arguments presented here show that noun/pronoun asymmetries can have other analysis. My reasoning is that examples (25) and (26) are grammatical and that example (28) has appositive reading. The corpus of literature proposes a different solution. Bošković notes that Serbian pronouns are N-pronouns in the sense of Fukui (1988). On the other hand Lyons’ introduction of other functional categories explains well the data offered by Progovac.

6 Trenkić (2004) gives examples from Romanian and Spanish where demonstratives are placed below NP:

(1) a. \textit{omul acesta} (Romanian)
    man-the this
   b. \textit{acest om} (Romanian)
    this man

(2) a. \textit{la casa esta} (Spanish)
    the house this
   b. \textit{esta casa} (Spanish)
    this house
6. Status of determiners

6.1. Relative order of determiners and nouns

The issue heavily debated in literature is whether word order in NP is free (Bošković 2005; Zlatić 1998) or not as free (Leko 1999; Pereltsvaig 2007). If we have an order of adjectives which is strict, there are claims that those adjectives occupy different projections within the DP. On the other hand, relatively free word order allows for adjectives to be treated as adjuncts to the NP.

Leko (1999) proposes that the landing site for Bosnian determiners (demonstratives, possessives, possessive pronouns) is SpecDP position. The strongest argument that Leko bases his assumption on is the relative order of determiners and nouns, i.e., determiners always precede nominal elements. The fact that demonstratives and indefinite determiners are in complementary distribution suffices for him to say that these elements compete for the SpecDP position.

One remark made by Trenkić (2004) is that, although demonstratives and indefinite determiners usually occur at the left of the phrase, free word-order allows them to be put in other structural positions like in the examples below:

(30) lepe ove misli (Serbian)
    nice these thoughts

(31) moje ove misli (Serbian)
    my these thoughts

(32) misli ove (Serbian)
    thoughts these

Although the above examples are stylistically marked, they are not ungrammatical. This permutability of Serbian demonstratives suggests that they are in nature adjectives rather than real determiners such as English a/the are. A further point is that in Serbian they are really called ‘demonstrative adjectives’ and that they occur with an adjectival declension not with a nominal one. (Examples are from Trenkić 2004)

(33) toj lepoj devojci (Serbian)
    that-SG-F-DAT beautiful-SG-F-DAT girl-SG-F-DAT
Ivšić (2008) repeats Bošković’s claim that the order of adjectives is relatively free, but gives a pair of NPs which, with switched adjectives, do not have the same reading.

(34) bivša Jovanova kuća vs. Jovanova bivša kuća (Serbian)  
former Jovan’s house *Jovan’s former house

The difference is not explained by Ivšić, and on careful reading of previous examples, my conclusion is that both of them have the same interpretation.

6.2. Co-occurrence of determiners and demonstratives

I turn back to Leko’s (1999) claim that indefinite determiners and demonstratives do not co-occur because they occupy the same structural position, namely SpecDP. But empirically confirmed data (10 out of 10 native speakers of Serbian and Croatian considered (35) acceptable, especially in informal language) show the possibility of constructions like these (examples are from Trenkić 2004):

(35) Došao joj je taj neki prijatelj iz Argentine. (Serbian)  
came to her is that some friend from Argentina  
‘That friend of hers from Argentina has arrived’

The meaning of such a construction is the following: “I don’t know who he is; I just know that he is her friend from Argentina.” This and all similar constructions prove that indefinite determiners and demonstratives can co-occur in a sentence, especially in informal language, which leads to the conclusion that they do not occupy the functional positions that Leko claims.

6.3. Modification of pronominal possessives

Another claim Trenkić (2004) and Bošković (2005) make is that pronominal possessives such as Russian Vanin ‘Vanya’s’ cannot be modified by another adjective or possessor, just as adjectives cannot be modified by other adjectives or possessors. This Pereltsvaig finds to be technically true. (Examples in (36) are taken from Pereltsvaig (2007:78)):
As an argument against Bošković and Trenkić, Pereltsvaig observes that prenominal possessives cannot be modified by an adverb as well, which is, as she claims, usually possible. I claim that there are a certain number of adverbs which can modify prenominal possessives:

(37)  a. delimično moj rad  (Serbian)
    partially my paper
    Approximately: ‘The paper that is partially mine’

    b. potpuno moj rad  (Serbian)
    entirely my paper
    Approximately: ‘The paper that is entirely mine’

The above data will support the claim that possessives in this particular case behave like adjectives.

6.4. Conclusion

This section gives evidence that the order of determiners in Slavic languages is relatively free. Also, the claim that indefinite determiners and possessives cannot co-occur is proved wrong. And finally, the fact that possessives can be pre-modified by adverbs is proven, contrary to some arguments. Based on all these facts I assume that determiners in articleless Slavic languages are actually adjectives in nature and do not occupy fixed syntactic positions in a sentence.

7. Acquisition studies

The final argument for the non-existence of DP in articleless languages comes from acquisition studies. Trenkić (2004) recalls Progovac’s (1998) account that...
fied by adjectives are extremely rare. This may mean that the category D is universally projected […] and thus need not be salient in the input of any particular language. (Progovac, 1998:169)

Trenkić (2004) conducted a study of Serbian speakers learning English as a second language. The findings show a tendency to omit the determiners in the constructions where an adjective modifies a noun more frequently than in constructions where nouns are not modified by an adjective.

Graph 1. Omission of the with non-modified (35) and pre-modified (10) singular nouns (taken from Trenkić 2004:1420)

Graph 2. Omission of a(n) with non-modified (9) and pre-modified (13) singular nouns (taken from Trenkić 2004: 1420).

The graphs (1) and (2) show that presence of adjectival modifiers negatively influences the use of articles with both A and B groups of non-native speakers (in comparison with the NS (native speakers) control group), which suggests that these learners might not have grammars equipped with the position for articles and that articles and adjectives might compete for the same (modifier) position in Serbian learners’ IL grammars for English (Trenkić 2004).
8. Final remarks

In view of the above, I adopt the structure of a noun phrase proposed by Zlatić (1998):

(38)

\[
\begin{array}{c}
\text{NP} \\
\text{AP} \quad \text{NP} \\
\text{sve} \quad \text{NP} \\
\text{ove} \quad \text{N'} \\
\text{AP} \quad \text{N'} \\
\text{Jovanove} \quad \text{AP} \\
\text{stare} \quad \text{NP[GEN]} \\
\text{njegove porodice} \quad \text{N} \\
\text{like} \quad \text{pictures}
\end{array}
\]

In this analysis Zlatić shows that all elements that precede the head noun are adjectives. Possessive *Jovanove* is also treated as an adjective, which helps to explain the relatively free order of adjectives in Slavic languages argued before. The diagram in (38) also depicts word order in other articless Slavic languages.

\[7\] Zlatić also notes that not all possessives have the syntactic status of an adjunct. Possessive adjectives accompanying event denoting nouns, such as *opisivanje* in (4), cannot switch their order with regular adjectives. It would be more accurate that these possessives be analysed as specifiers.

(1) a. *Marijino podrobnno opisivanje svoje majke* (Serbian)
   Mary’s thorough description self’s mother
   ‘Mary’s thorough description of her mother’

b. *podrobno Marijino opisivanje svoje majke* (Serbian)
without employing either movement or the distinction of functional and lexical categories.

References


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KATEGORIJA DP U SLAVENSKIM JEZICIMA BEZ ČLANA

Članak se bavi postojanjem nivoa s determinativnom frazom (DP) iznad imenske fraze (NP). Na temelju dokaza koji se iznose (ekstrakcija iz lijeve grane, Zwickyjev test, Boškovićevo poopćenje, asimetrije imenice i zamjenice, status determinatora te podataka o usvajanju jezika zaključuje se da se imenska fraza ne projicira dalje te da je maksimalna projekcija.

Ključne riječi: determinativna fraza; hipoteza o determinativnoj frazi; ekstrakcija iz lijeve grane; imenski izraz; član; slavenski jezici.