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A split DP-analysis of Croatian noun phrases

This paper investigates the syntactic structure of nominal expressions in Croatian and proposes their analysis in terms of a split DP. Within the split DP-approach, the nominal left periphery contains functional projections DefP, FocP, TopP and DP. I will show that these functional categories host different lexical items (e.g. determiners, demonstratives, possessives, etc.) that contribute to the (in)definiteness and specificity of the Croatian noun phrase. A reanalysis of the nominal left periphery in terms of a split DP allows for the explanation of DP-internal word order variations, along with some other syntactic phenomena.

Key words: syntactic structure of noun phrases; Croatian noun phrase; nominal left periphery; split DP Analysis; (in)definiteness and specificity.

1. Introduction

It is generally assumed that in a communicative situation a speaker structures his utterance in such a way as to achieve an optimal exchange of information. Information Structure (IS) denotes the formal organization of linguistic expressions in relation to their discourse functions (cf. Halliday 1967; Chafe 1976; Lambrecht 1994). According to Aboh et al. (2010:783) “information structure reflects the speaker’s hypotheses about the hearer’s state of mind (i.e., his assumptions, beliefs and knowledge) at the time of the utterance.” Since its introduction in the late sixties, the term *information structure* has been widely used to refer to the partitioning of sentences into categories such as focus, topic or comment. However, no consensus has yet been reached as to which and how many categories of information structure can be distinguished and identified (cf. Buring 2005).

Within the DP, the speaker’s hypotheses about the hearer’s familiarity with a



certain referent are reflected in his choice of determiner that mark the noun as either identifiable or non-identifiable for the addressee, as shown in the nominal expression *a/the linguist from China* below (Aboh et al. 2010:783):

- (1) a. *John invited [a linguist from China]* (indefinite; non-identifiable)
b. *John invited [the linguist from China]* (definite; identifiable)

Unlike English, which uses (in)definite articles to express this distinction, Turkish, for instance, marks the distinction between identifiable vs. non-identifiable object noun phrase with the help of case marking (ibid.):

- (2) a. *Ahmet öküz-ü aldı.* (accusative case, identifiable)
Ahmet ox-ACC bought
'Ahmet bought *the* ox.'
b. *Ahmet öküz aldı.* (no accusative marking, non-identifiable)
Ahmet ox bought
'Ahmet bought *an* ox.'

In a similar fashion, the difference between an identifiable and non-identifiable object noun phrase in Croatian can be expressed via an accusative/genitive case marking (Pranjković 2000: 345):

- (3) a. *dođati kruh* (identifiable)
to fetch bread-ACC.SG.MASC
b. *dođati kruha* (non-identifiable)
to fetch bread-GEN.SG.MASC

Adopting the view that the notions of non-familiarity (new information) vs. familiarity (known information) are associated with the categories of focus and topic respectively (cf. Rizzi 1997), the question arises as to whether the nominal domain contains these categories as well and how they are realized. According to Isac and Kirk (2008:142), there are two types of evidence for the existence of topic and focus projections within the DP. The first type of evidence comes from the NP-internal morphology, e.g. specificity markers in Gungbe (Aboh 2004). The second type of evidence is based on DP-internal displacement phenomena used to express topic and focus, e.g. word order alterations often entail different interpretations, such as focalization or emphasis of a particular nominal constituent.

Since discourse-related properties like topic and focus are encoded in the clausal left periphery (Rizzi 1997), the most prominent discourse-related notions associated with noun phrases, namely (in)definiteness and specificity, are assumed to be



realized within the nominal left periphery. Accordingly, the nominal left periphery is decomposed into various functional categories including projections related to focalization, topicalization, informational prominence and quantification (cf. Ihsane & Puskás 2001; Aboh 2002, 2004; Laenzlinger 2005, 2010; Giusti 2005, among others). The various proposals regarding its structure have been summarized under the term of a Split DP-Hypothesis. As far as the nominal left periphery in Slavic languages is concerned, to my knowledge no such subdivision has been undertaken so far¹. Noun phrases in Slavic are still considered to be either NPs (Bošković 2005, 2009, 2011; Zlatić 1998) or DPs (Progovac 1998; Leko 1999; Pereltsvaig 2007). Both views are still a matter of controversy. In spite of the obvious lack of the overt discourse-related markers of (in)definiteness and specificity, such as (in)definite articles, and the NP-internal morphology involved in the expression of topic and focus, I argue for a split DP-analysis of nominal expressions in Croatian because the decomposition of the nominal left periphery, along with the overall nominal structure captured by the split DP-proposal, allows me to explain certain DP constructions and syntactic patterns within Croatian noun phrase (e.g. constructions including the numeral *JEDAN* ‘one’ and deictically used demonstrative determiners, vocative constructions).

The paper is structured as follows: Section 2 introduces the categories of topic and focus both on the clausal level and within the DP. Section 3 gives an overview over different possibilities of (in)definiteness and specificity marking in Croatian and introduces nominal structures, whose syntactic analyses are provided in the subsequent Section 4. Section 5 offers a brief conclusion.

2. The Categories of Topic and Focus (Split CP vs. Split DP)

The cartographic approach to syntactic structures (e.g. Rizzi 1997, 2004; Cinque 1999; Belletti 2004, among others) “investigates the make-up of functional categories in the clause, and by extension in nominals. Essentially, it consists in identifying distinct positions in the structure dedicated to different interpretations“ (Ihsane 2010: 8). Following the idea that inflectional morphemes head their own functional projections (Chomsky 1986), clauses are viewed as being “articulated and formed of a succession of lexical and functional projections” (Ihsane 2010: 8). The cartographic approach has been successfully applied to the clausal inflectional domain

¹ Progovac (1998) and Leko (1999) provide a DP-analysis of SerBoCroatian noun phrases, including the projection DefP into their structure, but their definition of a split DP differs from the standard cross-linguistic approaches to the layered nominal left periphery.



(Pollock 1989) as well as to its left periphery (Rizzi 1997), and has recently been proposed for the nominal domain as well (cf. Ihsane & Puskás 2001; Aboh 2003; 2004, Laenzlinger 2005; Giusti 2005).

According to the cartographic approach to syntactic structures, the noun phrase displays a parallel structure to the one of the clause: both can be decomposed into three domains. The NP/VP-shells represent a **thematic domain** of a verb or a noun, that is, a domain where their external and internal arguments are merged (Larson 1988; Chomsky 1995; Grimshaw 1990). The **inflectional domain** is made up of functional projections that host modifiers of each lexical category, such as adverbs within the clause or adjectives within the noun phrase. Agreement, phi-features and case are also checked in this domain. Finally, **the left periphery** is associated with the notions of topic and focus in the clausal domain (Rizzi 1997) and, within the nominal domain, with the features related to the D head, such as (in)definiteness, specificity or referentiality (Aboh 2004). The established parallelism² between the two and the corresponding subdivision into three domains is illustrated in (4) below (Ihsane 2010:17):

(4)	a. $\left[\text{DP} \dots \left[\text{DP} \right. \right. \left. \left. \left[\text{FP adj1} \dots \left[\text{FP adj2} \dots \left[\text{NP} \dots \left[\text{NP} \dots \right] \right] \right] \right] \right] \right]$ b. $\left[\text{CP} \dots \left[\text{CP} \right. \left. \left[\text{FP adv1} \dots \left[\text{FP adv2} \dots \left[\text{VP} \dots \left[\text{VP} \dots \right] \right] \right] \right] \right] \right]$	$\left[\text{NP} \dots \left[\text{NP} \dots \right] \right]$ $\left[\text{VP} \dots \left[\text{VP} \dots \right] \right]$	
	$\underbrace{\hspace{10em}}$ left periphery	$\underbrace{\hspace{10em}}$ inflectional domain	$\underbrace{\hspace{10em}}$ NP/VP-shells

Since my analysis focuses on the nominal left periphery, in what follows I will briefly outline the split CP-Hypothesis first before introducing the split DP-Hypothesis.

2.1. *Topic and Focus on the clausal level (Split CP-Hypothesis)*

The empirical motivation for advancing the idea that there must be more than one type of a CP projection above TP comes from examples such as those in (5a), where the preposed constituent, here *no other colleague*, occurs after a complementizer like *that* (Radford 2004:328):

- (5) a. *I am absolutely convinced* [_{CP} *that no other colleague would he turn to*].

² Laenzlinger (2005) labels these three domains *Vorfeld* (left periphery), *Mittelfeld* (inflectional domain) and *Nachfeld* (thematic domain).



- b. *I am absolutely convinced* [_{ForceP} [_{Force} *that* [_{FocP} *no other colleague* [_{Foc} *would* [_{TP} *he would turn to no other colleague*]]]]]]].

The embedded CP in (5a) contains a focused constituent and a complementizer, both of which, along with the moved finite verb *would*, occur in the CP-domain. In order for all these elements to be hosted under CP, Rizzi (1997) suggested that the CP should be split into a number of different projections: ForceP, TopicP, FocusP and FinitenessP. His analysis has been widely referred to as a **split CP-Hypothesis**. Since complementizers specify whether a given clause is declarative, interrogative or exclamative in force, he suggested that complementizers are Force markers that head their own maximal projection, ForceP. The preposed focused constituents are contained within a separate Focus projection, FocP. In the above example the focused constituent *no other colleague*, which originates as a complement of the preposition *to*, moves from its complement position within the PP into the specifier position of the FocP. The head of FocP is targeted by the auxiliary *would*, which moves there from T⁰. The rearrangement of the constituents results in the clausal structure given in (5b).

A focused constituent typically represents a **new** piece of information within the discourse that the hearer is assumed not to be familiar with. As opposed to this type of constituent there is another class of preposed expressions that represent information which has already been introduced into the discourse, hence **old** information, referred to as a topic. Let us consider the following example, adopted here from Radford (2004:329):

- (6) A: *The demonstrators have been looting shops and setting fire to cars.*
 B: *That kind of behaviour*, we cannot tolerate in a civilized society.

Being the complement of the verb *tolerate*, the nominal phrase *that kind of behaviour* does not surface in its base-generated position, a canonical complement position to the right of the verb *tolerate*, but rather undergoes a movement (topicalization) to the specifier position in the left periphery of the clause. This type of a movement, generally regarded to be an instance of A-bar movement, serves to mark the preposed constituent as the topic of the sentence (cf. Radford 2004). According to Rizzi (1997) and Haegeman (2000), topicalized constituents occupy the specifier position within a Topic Phrase, which appears below the ForceP and above FocP, bringing about the following partitioning of the CP-domain: [_{ForceP} [_{Force} [_{TopP} [_{Top} [_{FocP} [_{Foc} [_{TP}...]]]]]]]]].

In addition to these three different types of projection, there is a fourth functional projection placed directly above TP, which Rizzi (1997) labels as FinP (Finite-



ness Phrase). The function of Fin^0 is to mark the sentence either as finite or as non-finite. In Italian this position is occupied by the infinitival prepositional particle *di* ‘of’, which introduces constructions involving infinitival control clauses (Radford 2004:333):

- (7) a. *Gianni pensa, il tuo libro, di PRO conoscerlo bene.*
Gianni thinks, the your book, of PRO know.it well
‘Gianni thinks that your book, he knows well’
- b. *Gianni pensa, [ForceP [Force \emptyset [TopP il tuo libro [Top \emptyset [FinP [Fin di [TP PRO conoscerlo bene]]]]]]].*

As mentioned before, the decomposition of the clausal left periphery has led to a close inspection of the left periphery within the nominal domain. This in turn has generated various proposals concerning the decomposition of the nominal determination area. They are captured under the term *Split DP-Hypothesis* and are briefly introduced in the next subsection.

2.2. Topic and Focus inside the DP (*Split DP-Hypothesis*)

Following the view that the clausal left periphery encodes discourse-related properties like topic, focus or illocutionary force, that have been captured by Rizzi’s (1997) split CP-Hypothesis introduced above, the question arises as to whether and to what extent the left periphery of the nominal domain encodes discourse-related notions as well. Among the most prominent discourse-related notions related to noun phrases are the notions of specificity and definiteness, both of which play an important role at the grammar-discourse interface. As already mentioned before, the speaker’s hypothesis about the hearer’s familiarity with a certain referent are reflected in his choice of determiners (Aboh et al. 2010: 783). The appropriate examples are given below:

- (8) a. *John invited [a linguist from China]* (indefinite; non-identifiable)
b. *John invited [the linguist from China]* (definite; identifiable)
- (9) *There is **this man** who lives upstairs from me who is driving me mad because he jumps rope at 2.a.m. every night.* (indefinite; specific)
- (10) a. *A **hünj** hee tuswark.* (Fering) (+identifiable/-familiar)
the dog (i.e. the speaker’s dog) has toothache
‘The dog has a toothache’



- b. *Peetje hee jister an kü slachtet. Jo saai, det kü wiar*
 Peetje has yesterday a cow slaughtered. One says the cow was
äi sünj. (+identifiable/+familiar)
 not healthy.
 ‘Peetje has slaughtered a cow yesterday. One says that the cow was not healthy’

The above examples illustrate that different languages use different means to express the distinction between identifiability and non-identifiability: the situation in English is straightforward in that it makes use of indefinite and definite articles, as shown in (8a, b). The example given in (9), taken from Ionin (2006:180), illustrates the use of the so-called ‘*this*-indefinite’ (referential indefinite *this*) in English, where the demonstrative *this* is not used deictically, but rather as a specificity marker. The referential indefinite *this* (*this_{ref}*) is an indefinite determiner that turns the DP *this man* into a specific indefinite DP. Such DPs denote, as Ionin (*ibid.*) puts it, “a particular referent [...] about which further information may be given”. Fering, a variant of Frisian, employs two types of definite articles, *a* in (10a) and *det* in (10b) to distinguish between a familiar (D-linked) and a non-familiar (but identifiable) referent. The definite article *a* encodes the features [+identifiable/-familiar], whereas the definite article *det/di* is assigned values [+identifiable/+familiar] (cf. Aboh et al. 2010:783).

The above examples show that the discourse-related notions of specificity and definiteness “have syntactic manifestations that need to be accounted for” (Aboh et al. 2010: 784). Besides, these examples also show that specificity and definiteness are features common to DPs across languages. The only difference concerns their grammaticalization. Some languages predominantly employ articles to express these two interrelated notions, while others make use of alternative grammatical and lexical devices. In order to account for the subtle differences between nominal expressions with respect to their specificity and/or definiteness features along with other IS-related notions such as topic or focus, for instance, a more finer-grained syntactic structure for the nominal left edge has been proposed (cf. Ihsane ans Puskás 2001; Aboh 2004; Haegeman 2004; Laenzlinger 2005, 2010; Giusti 2005, among others). According to Giusti (2005: 25), the fact that more than one functional element, or, in her words “multiple occurrences of determiners”, can appear within DP can be accounted for by assuming a split DP. In addition, the left periphery of the noun phrase “serves the function of complying with information structure” and is there in order to “host A-bar movement(s)” (Giusti 2005: 23). She assumes that unexpected, marked word orders within the NP in Romance can be ex-



plained if adjectival modifiers or genitival arguments move to left peripheral positions. The movements of these elements to the left periphery are triggered by the interpretive features [topic] and [focus]. Accordingly, she proposes that the determination area of a DP mirrors the clausal left periphery, consistently including the functional projections given in (11):

(11) DP > TopP* > FocP > TopP* > dP

Ihsane and Puskás (2001), on the other hand, place special emphasis on the discourse related notions of definiteness and specificity and their DP-internal syntactic realization. Like Giusti (2005) and many others, they also propose a structure of the nominal left periphery akin to Rizzi's (1997) split CP:

(12) DP > TopP > FocP > DefP

However, in their view, the notions of definiteness and specificity are responsible for the DP-internal movement of various constituents within the noun phrase. Since definiteness and specificity clearly cannot be collapsed into one property, they project separately, that is, both definiteness and specificity are syntactically realized in a different functional projection. The feature [+specific] appears on Top⁰, whereas Def⁰ hosts the feature [+definite]. A closer look at their proposal is instructive.

1. **Definite Phrase (DefP).** The lowest projection within the nominal left periphery, which corresponds to Rizzi's (1997) FinP, is labeled Definite Phrase (DefP). As already argued by Giusti (2005), the head of DefP, Def⁰, is occupied by articles, which in some languages trigger different inflection on adjectival modifiers. Ihsane and Puskás (2001: 41) argue that "the choice of the article reflects certain properties of the nominal system". This view is endorsed by two separate arguments. First, determiners select the nominal domain. This means that certain types of nouns are selected by certain determiners, e.g. mass nouns in English can only be selected by a zero indefinite article (Ihsane and Puskás 2001: 41):

(13) *John bought (*a) rice.*

Second, in the same way that Fin⁰ "anchors the event in time and determines the truth conditions of the proposition containing the predicate [...], definiteness relates to nominals in the sense that it determines the presupposition of existence of the entity represented by the nominal" (ibid.). The presupposition of existence is a property of definiteness. Definiteness is therefore considered to be an "existence-anchor". The morpho-syntactic realization of definiteness within the nominal system differs from language to language. In languages like Swedish, definiteness markers can appear twice, see (14a), while in others, e.g. Romanian in (14b), the feature [+definite] sometimes does not have to be phonologically realized. Never-



theless, the nouns given in (14a, b) below are both definite³ (Ihsane and Puskás 2001: 42):

- (14) a. *det store huset* b. *Merg la profesor(*ul).*
 the big house-the I'm going to professor-(*the)

The head of DefP, Def⁰, is characterized by the feature [+/-definite]. According to Ihsane & Puskás (2001:42), Def⁰ hosts articles “as a possible realization of the feature [+/-definite]”.

2. **Focus Phrase (FocP).** Due to the fact that certain elements within the noun phrase can be emphasized (e.g. numerals and possessives), Ihsane and Puskás (2001) argue for a FocP, which is dominated by both the nominal TopP and the highest nominal projection, the DP. That FocP is lower than TopP is evidenced by the following Hungarian examples, where the emphasized lexical item, the numeral *egy* ‘a/one’ below, does not necessarily have a specific reading. This implies that the projection hosting [+focus] feature occurs below the projection where the [+specific] feature is checked (Ihsane and Puskás 2001: 48):

- (15) a. *egy könyv* b. *EGY könyv*
 ‘a book/one book’ ‘(exactly) one book’

3. **Topic Phrase (TopP).** TopP hosts information that has been pre-established in the discourse. Nominal elements marked as [+specific] are entities that have been pre-established in the discourse. The projection TopP licenses some definite articles and demonstratives.

4. **Determiner Phrase (DP).** The existence of DP is backed up by the following Hungarian data:

- (16) *A lánynak ez a könyve*
 The girl-DAT this he book-POSS
 ‘this book of the girl’s’

The dative possessor⁴ *a lánynak* ‘the girl’ appears before the demonstrative *ez* ‘this’, which occupies the head position of TopP. Ihsane and Puskás (2001:50) assume that the dative possessor does not occur in the [Spec, TopP] because it is not associated with a specificity feature. Rather, it sits in the specifier position of the maximal projection placed over TopP, the [Spec, DP]. The idea that one further

³ The examples in (14), adopted from Ihsane and Puskás (2001: 42), originate from Granfeldt (1999) and Giusti (1997), respectively.

⁴ Hungarian distinguishes between two different possessive constructions: a nominative and a dative one. For the details of Ihsane and Puskás’ (2001) analysis, the reader is referred to their paper.



projection dominates TopP is further supported by constructions in which the dative possessor can be extracted out of the DP to a higher position in the clause:

- (17) a. *A lánynak vettem meg a könyvét.*
The girl-DAT bought-I PART the book-POSS
'I bought the girl's book'
b. **A lány vettem meg a könyvét.*
the girl-NOM bought-I PART the book-POSS

The fact that only the dative possessor in (17a) can be moved out of the DP, and not the nominative one in (17b), allows for a conclusion that a position occupied by it must be an escape hatch position within the DP which allows the possessor to move out.

3. Definiteness and Specificity in Croatian

One of the main arguments against the DP-analysis of nouns in Croatian, hence the non-availability of the nominal left periphery, relies on the fact that noun phrases appear without (in)definite articles (Zlatić 1998; Trenkić 2004; Bošković 2005, 2009, 2011). However, in spite of missing articles Croatian noun phrases display *definite/indefinite* distinction. This is particularly evident in contexts where the numeral *jedan* 'one' co-occurs with the demonstrative *taj* 'that', where the former functions as the indefinite and the latter as the definite article (Pranjković 2000:347):

- (18) *Poslije polusatne ugodne šetnje došli su do jednoga trga i*
after half-hour pleasant walk arrived are to one square and
na tom se trgu zadržali do kasnih večernih sati.
at that are square stayed till late evening hours
'After having pleasantly walked for half an hour they arrived at a square where they stayed until late in the evening'

In addition to the use of demonstrative pronouns and the numeral *jedan* 'one', which are used to express the opposition definite/indefinite, Croatian employs other lexical items (e.g. possessive forms, indefinite pronouns such as *neki* 'some', *neka-kav* 'some' or indefinite quantifiers *mnogo* 'many', *malo* 'little/few' etc.) and morphosyntactic (in)definiteness markers (e.g. adjectival inflection, case or number) for the same purpose (cf. Silić 2000; Pranjković 2000). Besides, other means such as prosody (stress), word order both within a DP and on a clausal level, verbal as-



pect, and both restrictive and non-restrictive relative clauses can be used to express (in)definiteness as well (cf. Pranjković 2000). To discuss all of them is beyond the scope of this paper. Hence, I will discuss constructions which in my view involve movement to the TopP and FocP within the nominal left periphery. They include nominal expressions that contain demonstrative determiners *taj* 'this'/'*ovaj* 'this' and *onaj* 'that', the numeral *JEDAN* 'one' and *jedan* 'one' as an indefiniteness marker, along with vocative constructions. They are briefly introduced below.

3.1. *Demonstrative determiners*

As shown in (18), demonstrative determiners are sometimes used instead of definite articles. However, they are claimed to be optional elements within a noun phrase, because their omission does not lead to ungrammaticality⁵ (Zlatić 1998:3):

- (19) (*Ovaj*) *student voli Mariju.*
 this student loves Mary
 'This/the student loves Mary'

Nevertheless, in certain contexts, see (20), they appear to be obligatory. In the sentence given in (20) we have a discourse deictically used demonstrative determiner *onaj* 'that'. Discourse deictically used demonstratives do not refer to any entity or a location, but rather "point to the meaning content of an immediately adjacent discourse segment" (Cleary-Kemp 2007: 335). Hence, a demonstrative determiner can either refer to the preceding or to the following discourse (anaphoric vs. cataphoric use). In (20), taken from the Croatian translation of a novel by Coelho⁶, the former is the case.

- (20) *(*Onaj*) *razgovor sa svećenikom, dok je još bio dijete,*
 that conversation with priest, while is still been child,

 pretvorio se u sjećanje.
 turned itself into memory
 'The conversation with the priest, when he was still a child, came to be a mere memory.'

The NP *razgovor* 'conversation' in (20) is accompanied by the distal demonstrative *onaj* 'that', which establishes reference to a conversation that took place at some

⁵ It should be noted, however, that the meaning of the sentence changes: *Ovaj student voli Mariju* doesn't mean the same as *Student voli Mariju*. Whereas in the first example we are talking about a particular, specific student, in the second one it can be any student.

⁶ Coelho, Paulo (2006). *Peta Gora*. Zagreb, VBZ. Tiskarna Ljubljana d.d., Ljubljana, p.25.



point in the past, here the childhood of the person being spoken of. The adverbial clause *dok je još bio dijete* ‘when he was still a child’ creates a particular referential context in this sentence, which makes the demonstrative determiner obligatory. The English translation equivalent shows that the noun *conversation* necessarily appears with the definite article *the*. Its omission would violate the grammaticality of the sentence.

3.2. The numeral *JEDAN* vs. ‘*jedan*’ as an indefiniteness marker

Under the assumption that the semantic interpretation results from the underlying syntactic structure, the following two expressions, which have different interpretations, must have different syntactic structures:

- (21) a. *JEDAN čovjek* b. *jedan čovjek*
 one man one-INDEF man

While in (21a) *jedan* ‘one’ refers to the number (*one man* as opposed to *two men*), in (21b) *jedan* ‘one’ is used to indicate the speaker’s assumption about whether the hearer is familiar or unfamiliar with the denoted referent. Hence, in (21b) *jedan* ‘one’ is used to indicate the indefiniteness of the noun *čovjek* ‘man’. That *jedan* ‘one’ indeed functions as an indefiniteness marker in Croatian is further endorsed by examples such as (22), where it appears together with a noun marked for plural:

- (22) *Na redu su još jedni savjeti za vašu kosu.*
 following are still one-NOM.PL advices-NOM.PL for your hair
 ‘There still follows some advice concerning your hair’
 [<http://videoteka.novatv.hr/multimedia/oblak-film-o-luki-ritzu.html>]

At this point the question arises as to how we can distinguish between the two. Silić (2000) observed that the numeral *jedan* ‘one’ is emphasized, whereas *jedan* ‘one’ in its function as indefinite article is not. This is confirmed by the following example, in which the use of *jedan* ‘one’ without emphasis, as in (21b), is ruled out:

- (23) *Ivan je kupio dvije knjige, a Marija je kupila JEDNU.*
 John bought two books, and Mary bought one /*one-INDEF

I assume that *jedan* ‘one’ as a numeral appears in a position specified for [+focus] feature, while *jedan* ‘one’ as an indefiniteness marker occupies a position where its [-def] feature is checked.



3.3. *Vocative constructions*

Concerning the formal accounts of vocative phrases, vocatives are taken to either lack a D head (Longobardi 1994; Szabolcsi 1994) or are regarded as regular DPs (Moro 2003) that allow for definite articles and adjectival modification (cf. Hill 2007: 2079). Espinal (2011) postulates a separate functional projection called VocP above DP, whose head Voc⁰ is endowed with a strong interpretable deictic [+DX] feature (cf. also Moro 2003; Stavrou 2009). My purpose, however, is not to give an extensive analysis of vocative constructions here, but simply to offer a possible explanation for the observed impossibility of demonstratives and simple nouns marked for vocative case to co-occur within the Croatian DP, see (25c). Consider the following examples:

- (24)a. *ova moja lijepa kuća* b. **kuća ova moja lijepa*
 this my beautiful house *house this my beautiful

In the neutral word order in (24a), determiners, possessives and adjectives appear before the noun. Their postposition is ungrammatical, as evidenced by (24b). However, in vocative constructions these lexical items display a different behaviour. Whereas adjectives or possessives⁷ may accompany the vocative noun in (25a, b), the determiner *ta* in (25c) cannot appear with it:

- (25)a. *lijepa djevojka / Djevojko lijepa!*
 beautiful-F.SG.NOM girl-F.SG.NOM / girl-F.SG.VOC beautiful F.SG.VOC
 ‘beautiful girl’ / ‘Beautiful girl!’
- b. *moja djevojka / Djevojko moja!*
 my-F.SG.NOM girl-F.SG.NOM / girl-F.SG.VOC my F.SG.VOC
 ‘my girl’ / ‘My girl!’
- c. *ta djevojka / *Djevojko ta! / Djevojko!*
 that-F.SG.NOM girl-F.SG.NOM / *girl-F.SG.VOC that / girl F.SG.VOC
 ‘that girl’ / *‘Girl that!’ / ‘Girl!’

If we adopt the view that both vocatives and demonstratives are endowed with the features [+specific, +definite] (cf. Espinal 2011; Hill 2007; Ihsane and Puskás 2001), this straightforwardly accounts for the ungrammaticality of (25c). If the el-

⁷ To my knowledge, the only elements that can appear in such constructions are the possessives *moj* ‘my’ and *naš* ‘our’, and the numeral *jedan* ‘one’, e.g. we can say *Dijete moje/naše!* ‘child my/our’ (but not: **Dijete tvoje!* ‘child your’) or *Kukavico jedna!* ‘coward one’ and *Budalo jedna!* ‘fool one’ (however, **Dijete jedno!* ‘child one’ is not possible here).



ements equipped with the [+specific] feature occupy the head position⁸ of TopP, as proposed by Ihsane and Puskás (2001), both the demonstrative *ta* ‘that’ and the noun *djevojko* ‘girl’, which is assigned vocative case, are competing for the same position. This is not the case in (25a, b). Since possessive determiners are [+definite, non-specific], the co-occurrence of the vocative noun and the possessive pronoun is not banned, as shown in (25b). The appropriate syntactic analysis of this construction is given in 4.3.

4. The syntactic analysis

Before we turn to the syntactic analysis of the constructions introduced above, let us have a look at (26), which mirrors the neutral word order of prenominal constituents within Croatian nominal expressions:

- (26) *sve te moje prve besmislene pogreške*
 all-F.PL these-F.PL my-F.PL first-F.PL preposterous-F.PL mistakes-F.PL
 ‘all these first preposterous mistakes of mine’

The neutral word order of prenominal constituents in Croatian (26) roughly corresponds to the universal word order proposed by Greenberg (1966) and Hawkins (1983), the only difference being the co-appearance of possessives between demonstratives and numerals in Croatian:

- (27)a. UNIVERSAL BASE ORDER

Demonstrative > Numeral > Adjective > Noun

- b. *Diese fünf großen Häuser* (German)

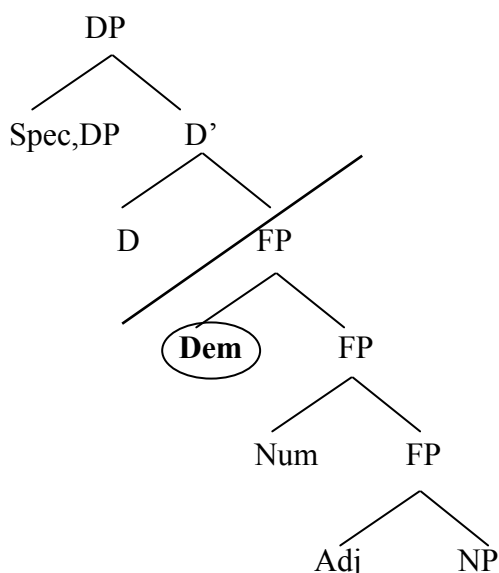
⁸ As extensively discussed in Caruso (2012), I generally assume that demonstrative determiners, possessives and numerals/quantifiers should be treated as heads rather than XPs for various reasons. Due to their number-determining and case-assigning properties, cardinal numerals (*dva ključa*-GEN. ‘two keys’) and quantifiers (*malo njih*-GEN. ‘a few of them’) obviously display head-like syntactic behavior. The pre-determiners *svi* ‘all’ and *svaki* ‘each’, for instance, are responsible for the number specification of the associated nominal complement (*svi prijatelji* ‘all friends’ vs. **svi prijatelj* ‘all friend’, or *svaka majka* ‘each mother’ vs. **svake majke* ‘each mothers’), which is a characteristic typical of heads. As far as possessives are concerned, they cannot be modified by degree adverbs (**jako moj* ‘very my’), like adjectives are (which are XPs), and their binding properties offer a further support for their non-XP status. Here I want to cite Newson (2006: 132), who said the following: “[...] the determiner looks suspiciously like a word and to analyse it as a phrase by itself begs the question why determiners never have complements, specifiers or adjuncts of their own.” For more details, see Caruso (2012), chapters 4 and 10.



- c. *These five large houses* (English)
(Ihsane and Puskás 2001: 45)

Both Greenberg (1966) and Hawkins (1983) assume that all the above-mentioned prenominal elements are generated in the inflectional domain of the noun. Adopting this view and following Giusti (1994), Ihsane & Puskás (2001:45) take the position that demonstratives are generated in the specifier position of the highest functional projection of the inflectional system, directly below the DP area, to which they move in order to check their [+specific] feature:

(28)



Can DemP be regarded as the highest functional projection within the inflectional domain cross-linguistically? The following examples seem to contradict this assumption, at least in Croatian:

- (29) a. [*Svi ti dokazani slučajevi*] *detaljno*
all-NOM.PL these-NOM.PL proven-NOM.PL cases-NOM.PL in detail
su bili dokumentirani tijekom posljednjih godina.
are been documented during last years.
 ‘All the proven cases have been documented in detail during the last years’
- b. [*Svih tih nekoliko*] *tisuća dokazanih*
all-GEN.PL these-GEN.PL several thousand-GEN.PL proven-GEN.PL



slučajeva] detaljno je bilo dokumentirano...
cases-GEN.PL in detail is been documented

- c. [*Mojih prvih pet rečenica*] *odnose su se na...*
my-GEN.PL first-GEN.PL five sentences-GEN.PL referred are self to...

The example given in (29a) mirrors the neutral word order within a DP, where the demonstrative appears in front of all other constituents, being preceded only by the universal quantifier *svi* ‘all’. In addition, all pronominal elements agree with the noun in number, gender and case. However, in spite of the preserved word order in (29b), both the universal quantifier *svi* ‘all’ and the demonstrative determiner *ti* ‘that-GEN.PL’ are marked for genitive, although *nekoliko* ‘several’ quantifies *tisuće dokazanih slučajeva* ‘thousands of proven cases’. These examples show that, since all constituents preceding quantifiers and numerals are marked for genitive, QP must be the highest functional projection within the inflectional domain, followed by DemP, NumP and others. After having been assigned case in their base-generated position within the inflectional domain, some pronominal items subsequently move out of it to the left periphery, where they check their specificity, focus and (in)definiteness features. Following this idea, let us have a look at the syntactic structure of the constructions introduced in 3.1. - 3.3.

4.1. DPs Containing Demonstrative Pronouns

Before turning to the analysis of DPs that contain demonstrative determiners, let us have a brief look at (30) below:

- (30) *Profesorov-a procjena Vaših sposobnosti*
professor-POSS.NOM assessment-NOM your abilities-GEN

In the argument-supporting nominalization (ASN) in (30), one of the nominal arguments is realized as a possessive adjective (*profesorova* ‘professor’s’). Being the argument of the noun *procjena* ‘assessment’ the possessive element is c-selected and theta-marked by the noun. This further implies that it must be generated in a position where it receives its theta-role, that is, within the nP-shell. Due to the fact that it also contributes to the definiteness status of the whole nominal expression, it moves to the nominal left periphery, where these features are checked: the possessive suffixes *-ov*, *-ev*, *-in* etc. are generated in the head position of PossP and move to Def⁰ (Caruso 2012).

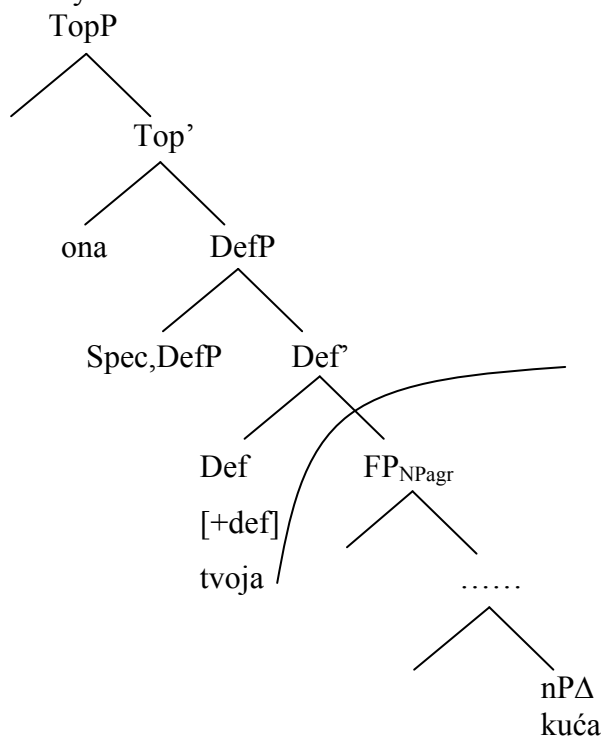
Now consider the following examples:



- (31) a. **moja ova ruža* b. **Petrovi oni prijatelji*
 my this rose Peter-POSS those friends
 *‘my this rose’ *‘Peter’s those friends’ (Zlatić 1997: 36ff.)

As we can see in (31), the ordering *Poss-Det* is ungrammatical, which means that demonstrative determiners occupy a position above PossP. If possessive elements move to DefP, as briefly outlined above, then demonstrative determiners need to move farther up to TopP (to check their [+spec] feature). Hence, the syntactic analysis of the nominal expression *ona tvoja kuća* ‘that house of yours’ in (32) looks as follows:

- (32) *ona tvoja kuća*
 that your house
 ‘that house of yours’



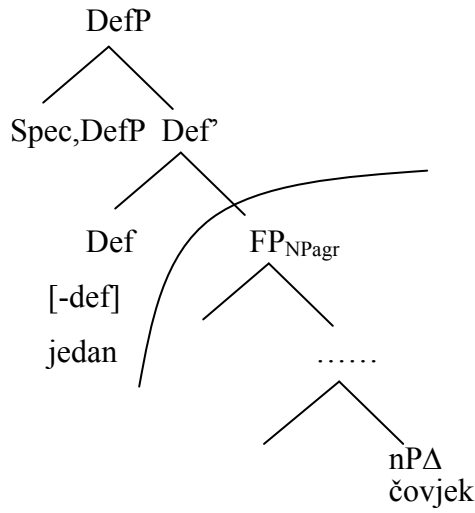
4.2. The numeral *JEDAN* vs. ‘jedan’ as an indefiniteness marker

As already mentioned previously, the unstressed version of the numeral *jedan* ‘one’ is used to indicate the indefiniteness of the nominal referent and functions as a real indefinite article (cf. Silić 2000). Being an indefiniteness marker, *jedan* ‘one’ is

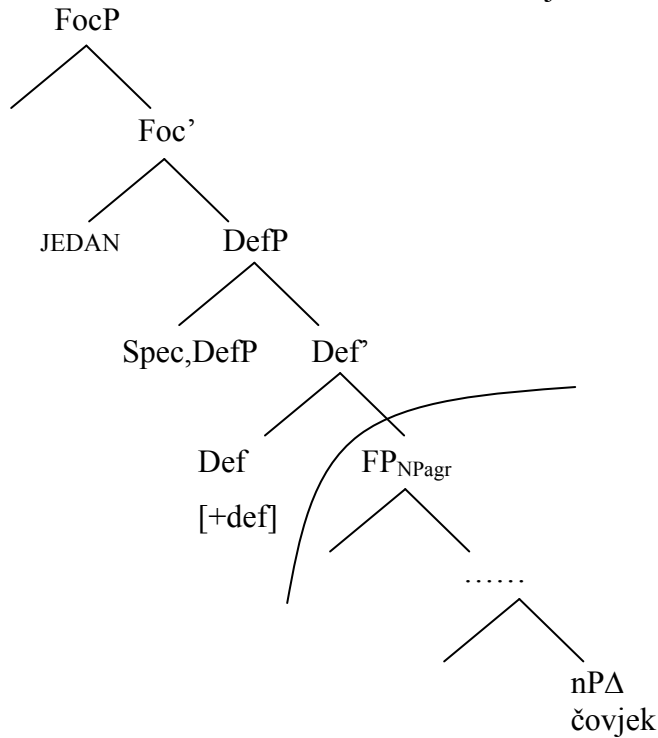


base-generated in Def^0 , a position where both definite and indefinite articles in DP-languages occur (33a). In contrast, the numeral *JEDAN* ‘one’, which necessarily needs to be emphasized, appears in a position specified for a [+focus] feature, that is, in FocP (see (33b)):

(33) a.



b.



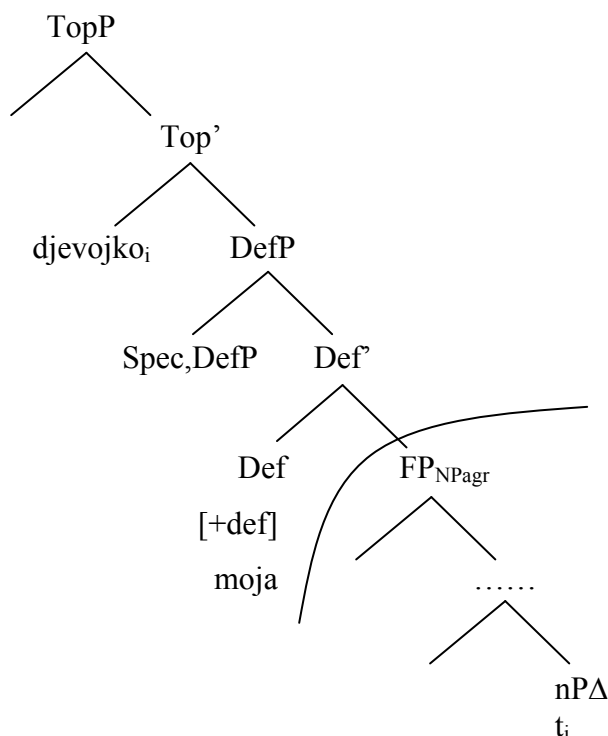


4.3. *Vocative constructions*

Recall the example given in (25b), which is repeated here for the convenience sake:

- (34) *moja djevojka / Djevojko moja!*
 my-F.SG.NOM girl-F.SG.NOM / girl-F.SG.VOC my-F.SG.VOC
 “my girl / My girl!”

As already mentioned, since possessive determiners are [+definite, non-specific], the co-occurrence of the vocative noun and the possessive pronoun is not banned. As we could see before, possessive determiners move to DefP. Since the vocative noun *djevojko* ‘girl’ precedes it, the noun moves from its base-generated position to Top⁰, leaving the possessive determiner *moja* ‘my’ behind in Def⁰. Hence, the proposed syntactic structure looks as follows:



5. Concluding remarks

In this paper I argue for a split DP-analysis of nominal expressions in Croatian, despite the fact that Croatian lacks (in)definite articles, which are considered to be the

most-prominent overt discourse-related markers of (in)definiteness and specificity.

Although no NP-internal morphology is involved in the expression of topic and focus (in the sense of Aboh 2004), certain DP constructions that involve emphasized elements (e.g. numeral *JEDAN* ‘one’ vs. the indefiniteness marker *jedan* ‘one’), or syntactic patterns that deviate from the regular DP-internal word order (e.g. vocative constructions) can be best explained if we adopt the layered nominal left periphery that consists of several functional projections, among them FocP and TopP.

References

- Aboh, Enoch. 2003. *The morphosyntax of complement-head sequences*. Oxford: Oxford University Press.
- Aboh, Enoch. 2004. *Topic and focus within D*. *Linguistics in the Netherlands* 21. 1–12.
- Aboh, Enoch, & Corver, Norbert, & Dyakonova, Marina, & Koppen, Marjo van. (eds.). 2010. DP-internal information structure: Some introductory remarks. *Lingua* 120. 782–801.
- Belletti, Adriana (ed.). 2004. *Structures and beyond. The cartography of syntactic structures*. Oxford: Oxford University Press.
- Bošković, Željko. 2005. On the locality of left branch extraction and the structure of NP. *Studia Linguistica* 59(1). 1–45.
- Bošković, Željko. 2009. Good monsters are back, now we need to rename them. (Paper presented at the Conference “Atoms and Laws of the Noun Phrase” at the University of Utrecht, July 2, 2009).
- Bošković, Željko. 2011. More on the DP/NP analysis of languages with and without articles (Paper presented at the Conference on Languages with and without articles, Paris (CNRS/Paris 8), March 3-4, 2011).
- Büring, Daniel. 2005. Semantics, intonation and information structure. Available at: <http://semanticsarchive.net/Archive/GQ0YjgxM/buring.information.structure.v2005.pdf>.
- Caruso, Đurdica Željka. 2012. *The syntax of nominal expressions in articleless languages: a split DP-analysis of Croatian nouns*. PhD Dissertation, University of Stuttgart.
- Chafe, Wallace. 1976. Givenness, contrastiveness, definiteness, subjects, topics and point of view. In Li, Charles (ed.), *Subject and topic*, 25–56. New York: Academic Press.
- Chomsky, Noam. 1986. *Barriers*. Cambridge Mass.: The MIT Press.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Mass.: The MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press.



- Cleary-Kemp, Jessica. 2007. Universal uses of demonstratives: Evidence from four Malayo-Polynesian languages. *Oceanic Linguistics* 46. 325-347.
- Espinal, Teresa Maria. 2011. On the structure of vocatives. Available at: <http://filcat.uab.cat/clt/publicacions/reports/pdf/GGT-11-04.pdf>.
- Giusti, Giuliana. 1994. Enclitic articles and double definiteness: A comparative analysis of nominal structure in Romance and Germanic. *The Linguistic Review* 11. 231–255.
- Giusti, Giuliana. 1997. The categorial status of determiners. In Haegeman, Liliane (ed.), *The new comparative syntax*, 95–123. Harlow: Addison Wesley Longman.
- Giusti, Giuliana. 2005. At the left periphery of the Romanian noun phrase. In Coene, Martine, & Tasmowski, Liliane (eds.), *On space and time in language*, 23–49. Cluj: Clusium.
- Grandfeldt, Jean. 1999. *Sur la structure du DP dans les langues Scandinaves*. (Presentation in the DES seminar, Geneva.)
- Greenberg, Joseph Harold. 1966. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph Harold Greenberg, ed., *Universals of language*, 73–113. (2nd ed.). Cambridge, Mass.: MIT Press.
- Grimshaw, Jane. 1990. *Argument structure*. Cambridge, Mass.: MIT Press.
- Haegeman, Liliane. 2000. Inversion, non-adjacent inversion and adjuncts in CP. *Transactions of the Philological Society* 98. 121–160.
- Haegeman, Liliane. 2004. DP-periphery and clausal periphery: Possessor doubling in West Flemish. In Adger, David, & Cat, Cécile de, & Tsoulas, George (eds.), *Peripheries*, 211–240. Dordrecht: Kluwer.
- Halliday, Michael A.K. 1967. Notes on transitivity and theme in English, Part II. *Journal of Linguistics* 3. 199–244.
- Hawkins, John A. 1983. *Word order universals*. New York: Academic Press.
- Hill, Virginia. 2007. Vocatives and the pragmatics-syntax interface. *Lingua* 117. 2077–2105.
- Ihsane, Tabea, & Puskás, Genoveva. 2001. Specific is not definite. In Shlonsky, Ur, & Ihsane, Tabea (eds.), *GG@G (Generative Grammar in Geneva) 2*, 39–54. Geneva: Generative Grammar Group of the Department of Linguistics of the University of Geneva.
- Ihsane, Tabea. 2010. *The layered DP: Form and meaning of French indefinites*. Amsterdam: John Benjamins.
- Ionin, Tania. 2006. ‘This’ is definitely specific: Specificity and definiteness in article systems. *Natural Language Semantics* 14. 175–234.
- Isac, Daniela, & Kirk, Allison. 2008. The split DP hypothesis: Evidence from ancient Greek. *Rivista di Grammatica Generativa* 33. Available at: <http://lear.unive.it/bitstream/10278/2506/1/Isac-Kirk.pdf>.
- Lambrech, Knud. 1994. *Information structure and sentence form. topic, focus and the*

- mental representations of discourse referents*. Cambridge: Cambridge University Press.
- Laenzlinger, Christoph. 2005. French adjective ordering: Perspectives on DP-internal movement types. *Lingua* 115. 645–689.
- Laenzlinger, Christoph. 2010. The CP/DP parallelism revisited. In Ihsane, Tabea, & Laenzlinger, Christoph (eds.), *GG@G (Generative Grammar in Geneva) 6*, 49–107.
- Larson, Richard K. 1988. *On the double object construction*. *Linguistic Inquiry* 19. 335–392.
- Leko, Nedžad. 1999. Functional categories and the structure of the DP in Bosnian. In Dimitrova-Vulchanova, Mila, & Hellan, Lars (eds.), *Topics in South Slavic syntax and semantics*, 229–252. Amsterdam: John Benjamins.
- Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement in syntax and logical form. *Linguistic Inquiry* 25(4). 609–665.
- Moro, Andrea. 2003. Notes on vocative case: A case study in clause structure. In Quer, Joseph, & Schroten, Jan, & Scorretti, Mauro, & Sleeman, Petra, & Verheugd, Els (eds.), *Romance languages and linguistic theory 2001. Selected papers from 'Going Romance'*, 247–261. Amsterdam: John Benjamins.
- Newson, Mark, & Hordós, Marianna, & Pap, Dániel, & Szécsényi, Krisztina, & Tóth, Gabriella, & Vincze, Veronika. 2006. *Basic English syntax with exercises*. Budapest: Bölcsész Konzorcium.
- Pereltsvaig, Asya. 2007. On the universality of DP: A view from Russian. *Studia Linguistica* 61(1). 59–94.
- Pollock, Jean-Yves. 1989. *Verb Movement, Universal Grammar and the Structure of IP*. *Linguistic Inquiry* 20, 365–424.
- Pranjković, Ivo. 2000. Izražavanje neodređenosti/određenosti imenica u hrvatskome jeziku. In Stolac, Diana (ed.), *Riječki filološki dani, Zbornik radova 3*, 343–350. Rijeka: Filozofski fakultet Sveučilišta u Rijeci.
- Progovac, Ljiljana. 1998. Determiner phrase in a language without determiners. *Journal of Linguistics* 34. 165–179.
- Radford, Andrew. 2004. *Minimalist syntax: Exploring the structure of English*. Cambridge: Cambridge University Press.
- Rizzi, Luigi (1997). The fine structure of the left periphery. In Haegeman, Liliane (ed.), *Elements of grammar*, 281–337. Dordrecht: Kluwer.
- Rizzi, Luigi. 2004. *The structure of CP and IP. The cartography of syntactic structures*. Oxford: Oxford University Press.
- Silić, Josip. 2000. Kategorija neodređenosti/određenosti i načini njezina izražavanja. In Stolac, Diana (ed.), *Riječki filološki dani, Zbornik radova 3*, 401–406. Rijeka: Filozofski fakultet Sveučilišta u Rijeci.
- Stavrou, Melita. 2009. Vocative! Ms. Aristotle University of Thessaloniki.



- Szabolsci, Anna. 1994. *The noun phrase*. In Kiefer, Ferenc Kiefer, & Kiss., Katalin É. (eds.), *Syntax and semantics. The syntactic structure of Hungarian* (Vol. 27), 179–274. New York: Academic Press.
- Trenkić, Daniela. 2004. Definiteness in Serbian/Croatian/Bosnian and some implications for the general structure of the nominal phrase. *Lingua* 114. 1401–1427.
- Zlatić, Larisa. 1997. *The structure of the Serbian noun phrase*. Doctoral Dissertation, University of Texas at Austin.
- Zlatić, Larisa. 1998. Slavic noun phrases are NPs not DPs. (Workshop on Comparative Slavic Morphosyntax, Bloomington, Indiana, June 5–7, 1998).

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ANALIZA RAZDVOJENE DETERMINATORSKE SKUPINE HRVATSKIH IMENSKIH SKUPINA

Ovaj rad proučava sintaktičku strukturu hrvatskih imenskih skupina i predlaže njihovu analizu u smislu razdvojene determinatorske skupine (split DP-analysis). U sklopu razdvojenog DP-pristupa imenska lijeva periferija razdvojena je na različite funkcionalne projekcije, kao što su DefP (projekcija određenosti), FocP (projekcija fokusa) ili TopP (projekcija topikalizacije). Autorica je pokazala da te funkcionalne projekcije sadrže različite predimenske elemente (determinatore, pokazne i posvojne zamjenice), koji pridonose (ne)određenosti i specifičnosti hrvatske imenske skupine. Razdvajanje imenske lijeve periferije omogućuje objašnjenje različitih sintaktičkih pojava unutar hrvatske imenske skupine.

Ključne riječi: sintaktička struktura imenskih skupina; hrvatska imenska skupina; imenska lijeva periferija; razdvojen DP-pristup; (ne)određenost i specifičnost imenskih skupina.