J. Linguistics **34** (1998), 165–179. Printed in the United Kingdom
© 1998 Cambridge University Press

Determiner phrase in a language without determiners[1]

(with apologies to Jim Huang 1982)

LJILJANA PROGOVAC

Wayne State University

(Received 6 June 1996; revised 11 March 1997)

Serbo-Croatian (SC) is a language without articles, probably the only category of speech that has uncontroversially and crosslinguistically been argued to occupy the head of the Determiner Phrase (DP). This paper argues that even SC, a language without articles, projects a DP on top of NPs in argument positions. The strongest evidence comes from noun/pronoun asymmetries, where the pronouns precede, and nouns follow, certain intensifying adjectives. Assuming that these adjectives occupy a fixed syntactic position, the conclusion must be that pronouns occupy a structurally higher position than nouns. Since the evidence of such asymmetries is extremely sparse in the data, the children presumably cannot rely on them to conclude that there is a DP in SC. Since there are also no articles in SC, children have virtually no evidence of the existence of a DP. It must be then that the projection of DPs is a universal property, independent of the presence of the lexical item which solely occupies the head of the projection. Morphological properties of SC pronouns and adjectives actually support the existence of more than just one functional projection in the noun phrase in SC. The paper derives Greenberg's universal 43, which states that pronouns are more likely to have (gender) morphology than nouns, by arguing that pronouns move (overtly) through more functional projections than nouns, and ultimately land in D.

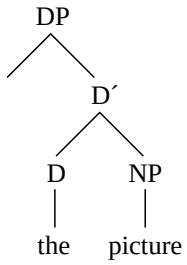
1. Introduction

Recently, it has been argued with reasonable force that nouns are not heads of the phrases traditionally referred to as noun phrases (NPs), such as, *the picture*. Instead, the article is taken to be the head of this projection, dubbed determiner phrase or DP (see, for example, Brame 1981, 1982; Abney 1987; Szabolcsi 1987):

[1] I am deeply indebted to the inspiring linguist circle gathered in Venice in the spring of 1995, especially to Anna Cardinaletti, Guglielmo Cinque, Giulina Guisti, Richard Kayne, Giuseppe Longobardi and Laura Bruge, who actually convinced me, unknowingly and unintentionally, perhaps, that there is a DP even in Serbo-Croatian. I am grateful to Martha Ratliff for offering insights on the historical and typological perspectives. The two anonymous *JL* referees provided me with most valuable comments.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

(1)



The reasons include, but are not limited to, the following facts: (a) there is systematic parallelism between sentences and NPs (see (2)), which can best be captured by introducing functional categories into NPs; (b) there is evidence of head-to-head movement within noun phrases which can only be captured if another (c-commanding) head is present (Longobardi 1994); (c) some languages show possessor/possessed agreement in the NP (see (3) from Hungarian (Szabolcsi 1987)), clearly indicating a need for a functional head in the NP:

(2) (a) [$_{S}$ John builds spaceships]
(b) [$_{NP}$ John's building a spaceship] upset me.

(3) (a) az en kalap-om
the I-NOM hat-1SG
'my hat'
(b) a te kalap-od
the you-NOM had-2SG
'your hat'
(c) a Peter kalap-ja
the Peter hat-3SG
'Peter's hat'

Articles seem to be the only category which occupies the head D position, uncontroversially and crosslinguistically. Giusti (1992, 1995) shows that demonstratives and possessives can co-occur with articles in many unrelated languages and concludes that they occupy specifier positions, not head of DP:

(4) ez a haz (Hungarian)
this the house
(5) ika n anak (Javanese)
this the boy
(6) la mia penna (Italian)
the my pen

The following questions arise with respect to languages without articles: do they or do they not project a DP; if not, why is it possible to have arguments

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

not headed by D in such languages, but not in say Italian or English (see Longobardi 1994); if yes, what kind of evidence do children have in acquiring this category, in the absence of a salient head; or is the category D universally projected in argument positions, and thus need not be learned from the input?

I look at one such language, a language without articles, Serbo-Croatian (SC). I argue that, in spite of the lack of articles, and in spite of the fact that demonstratives and possessives act like adjectives in SC, there is support for the existence of a DP selecting NP in SC. First of all, SC exhibits noun/pronoun asymmetries which are best captured by placing pronouns in D positions (see Postal 1969, Longobardi 1994), and nouns in N positions. Moreover, SC data are best analysed if pronouns are generated in N, or at least in a functional projection between N and D, and then move to D, in the spirit of Cardinaletti's (1993) proposal. In addition, SC offers morphological evidence for the existence of more than one intermediate functional head between N and D, which may lead to a 'Split D' analysis.

2. Noun/pronoun contrasts

Those adjectives that can appear with pronouns in SC must necessarily precede the pronouns, in contrast to nouns, which uniformly follow adjectives.[2]

Accusative

(7) I **samu Mariju** to nervira
and alone Mary that irritates
'That irritates even Mary.'

(8) ?*I **Mariju samu** to nervira.

(9) ?* I **samu nju/mene** to nervira.
and alone her/me that irritates
'That irritates even her/me.'

(10) I **nju/mene samu** to nervira.

[2] It is interesting to note in this respect that reflexives in SC seem to pattern with nouns, rather than with pronouns:

(i) On ne podnosi ni **samog sebe**.
he not stands neither alone self-ACC
'He cannot stand even himself.'

(ii) ??On ne podnosi ni **sebe samog**. (poetic)

In the literature on reflexives (for example, Yang 1983), one usually differentiates two broad types of reflexives, morphologically simple and morphologically complex, for example, Chinese *ziji* 'self' vs. *ta-ziji* 'he-self.' Simple reflexives in turn seem to fall into two distinct types, those situated in D, such as *zich*, *sig*, etc. (see Reinhart & Reuland 1993), and those situated in N, such as *sebja* in Russian and *sebe* in SC (see Gohre & Progovac 1994).

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

Dative

(11) Ni **samoj Mariji** se to ne svidja.
neither alone-DAT Maria-DAT self this not appeals
'This does not appeal even to Marija.'
(12) ?*Ni **Mariji samoj** se to ne svidja.
(13) ?*Ni **samoj njoj/meni** se to ne svidja.
neither alone-DAT her/me-DAT self this not appeals
'This does not appeal even to her/me.'
(14) Ni **njoj/meni samoj** se to ne svidja.

Nominative

(15) ??Ni **Marija sama** u to ne veruje
neither Mary alone in that not believes
'Not even Mary believes that.'
(16) Ni **sama Marija** u to ne veruje.
(17) Ni **ja sama/ona sama** u to ne veruje(m)
neither I alone she alone in that not believe(1SG)
'Not even I/she believe(s) that.'
(18) Ni ?***sama ja**/??**sama ona** u to ne veruje(m).
(19) **Mi siti** ne verujemo gladnima.
we full not believe hungry
'We full do not believe the hungry.'
(20) ***Siti mi** ne verujemo gladnima.
(21) **Siti ljudi** ne veruju gladnima.
'People who are full do not believe the ones who are hungry.'
(22) ***Ljudi siti** ne veruju gladnima.

The data above indicate that pronouns and nouns in SC appear in different surface positions. What are those positions?

Longbardi (1994) discusses similar name/pronoun contrasts in Italian, and concludes that pronouns occupy the determiner position (D) underlyingly, following Postal (1969), whereas nouns are generated in N positions, and may, in some languages, under certain circumstances, raise to D. Significantly, this movement can only take place in the absence of articles suggesting that D position is the landing site:

(23) La sola Maria si e presentata.
'Only Mary showed up.'
(24) *Sola Maria si e presentata.
(25) Maria sola si e presentata.
(26) *La sola lei si e presentata.
(27) Lei sola si e presentata.
'Only she showed up.'
(28) *Sola lei si e presentata.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

(29) Noi ricchi stiamo diventando ancora più ricchi.
'We rich are becoming even richer.'
(30) *Ricchi noi stiamo diventando ancora più ricchi.

The pronoun/noun asymmetries in Italian take a slightly different form from the ones in SC: while adjectives cannot precede pronouns at all, they can precede nouns, but only if there is an article heading the phrase. If the article is missing, the proper noun has to precede the adjective, suggesting that the noun occupies the same position as the pronoun, namely D. Longobardi suggests that this obligatory raising of a proper noun is driven by the strong referential (R) feature of D in Italian (see Chomsky's 1993, 1995 Minimalist Program), as opposed to the weak R feature in Germanic, in which languages the N raising takes place only in LF, in accordance with the Principle Procrastinate. If the referential feature in D is weak in SC, then N raising will not apply, and the difference between, for example, Italian (25) and SC (8) will follow. Adjectives will necessarily precede nouns in SC, but can either precede or follow proper nouns in Italian, depending on the presence vs. absence of articles. On the other hand, if argument pronouns sit in D in both languages, no difference in adjective placement with respect to pronouns is expected, as confirmed by the data.

Notice that this account of SC contrasts, as well as the explanation of the differences between SC and Italian, relies on the adoption of the DP hypothesis even in SC. Since SC has no articles, and since proper names do not raise to D in syntax, the only category that occupies D position at an audible level are pronouns. It seems highly improbable that SC children can learn that they have a DP on the basis of the noun/pronoun contrasts given above. Constructions involving pronouns modified by adjectives are extremely rare. This may mean that the category D is universally projected in the case of argument positions, and thus need not be salient in the input of any particular language.

As pointed out by a reviewer, by adopting the DP hypothesis for SC, I lose Corver's (1992) explanation for left-branch extractions in SC. His proposal is that only languages without a DP will allow left-branch extractions because D′ acts as a barrier (by inheritance) for extraction out of NP (see Chomsky 1986). Thus English (31) and (32) below are excluded, but SC (33) and (34) are grammatical:

(31) *Whose did you see [t car]?
(32) *Which did you see [t car]?
(33) Čiji si video auto?
whose have seen car
(34) Koji si video auto?
which have seen car

As pointed out in Corver, the equivalents of *whose/which* in the Slavic languages he discusses are adjectival elements, in contrast to English, where

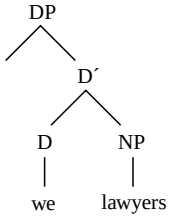
https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

they are associated with D. Thus, it may be possible to account for the parametric variation by appealing to the different categorial status of these words. One can argue that extraction in SC is possible because *koji/čiji* are adjectival phrases, which are allowed to move to phrasal SpecCP positions. In contrast, as pointed out in Corver, English (31) would involve extraction of a non-constituent, encompassing both Spec and Head of DP, on the assumption that *who* (of *whose*) is in Spec and *se* in the head D position. Avrutin (1994) adopts the same explanation for the contrast in extraction possibilities between Russian and English possessives. If *which* in English is in D, or stretches across D, then it would not be able to move into a phrasal position due to the Structure Preserving principle. In other words, since there is evidence that the words in question have different categorial status in English vs. SC, this difference may be sufficient to explain the left-branch parameter, without the need to invoke barrierhood of DP. A thorough analysis of the left branch condition is beyond the scope of this paper.

3. Pronouns in D: base generation or movement?

Although many would agree that pronouns appear in D positions at S-structure (or pre-spell-out), there is still disagreement with respect to whether pronouns are generated in D (see Postal 1969, Longobardi 1994), or move from N to D (for example, Cardinaletti 1993). SC data support the latter hypothesis, or at least the hypothesis that pronouns move from a lower head position into D.[3] Pronouns in SC show overt morphology, not present in

[3] A reviewer points out that examples like *we lawyers* or *you doctors* argue against generating pronouns in N, on the assumption that the structure is as follows:

(i)


Cardinaletti (1993) argues that in such constructions the NP is in an adjoined position, rather than in a complement position of D. Support for that analysis comes from the possibility to add such appositives to nouns, as in (ii), and from the impossibility of singular pronouns in such constructions (iii):

(ii) my friends lawyers…
(iii) *he lawyer

This matter requires further research. In this paper I will remain uncommitted to whether a pronoun is generated in N or in an intermediate functional projection between N and D.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

nouns, that would be acquired/checked by head movement through the extended projections of NP all the way to D.

That pronouns should show more functional morphology than nouns is hardly a quirk of SC. English still has case marking on pronouns but not on nouns, as illustrated in the *he*/*him* contrast. Actually, one of Greenberg's (1996) implications claims that a pronoun is more likely to have gender morphology than a noun:

(35) *Greenberg's universal 43*
If a language has gender categories in the noun, it has gender categories in the pronoun.

These facts can be explained by the assumption that pronouns move a longer way than nouns, at least before spell-out (that is, overtly), on their way to a functional projection, thus checking their agreement/case/referential features in more projections.

SC adjectives agree with nouns in gender, number and case (see (36) and its tree diagram in (37)). Although case markers on adjectives and nouns usually coincide, they do not always, as is evident from Table 1 (see p. 00 below). In case they do not coincide, the agreement on adjectives is heavier, and comprises the nominal agreement. The interesting fact is that pronouns surface with this heavier, adjectival agreement, as shown in (38): *nje*-G-A. Suppose that adjectival agreement is generated in an extended projection of NP, say AgrP (see Cinque 1990, 1991, 1993). If pronouns move to D at S-structure, they will move through the head of this phrase and check the features of Agr. Nouns, on the other hand, will procrastinate their movement to D until LF, if they move at all, and thus will not show the same agreement overtly. As pointed out by a referee, this analysis is consistent with Chomsky's (1995) suggestion that overt agreement is more likely to be a reflex of Spec/Head agreement, performed by movement, than LF checking.[4]

(36) tv-o-**g(a)** lep-o-**g(a)**
your-ACC/GEN-MASC-SG handsome-ACC/GEN-MASC-SG
brat-a
brother-ACC/GEN-MASC-SG

[4] Although the possessive in SC has the form of an adjective, it has some properties that distinguish it from other adjectives. On a neutral interpretation, it precedes all adjectives, which fact would follow from its higher surface structure position. If it is generated in the Spec of NP, then its adjectival agreement would be the result of movement through AgrP, possibly by adjunction to Spec. Also, this assumption would keep open the possibility that possessives are universally generated as arguments of nouns. To the extent that my discussion in Section 4 is on the right track, there is an additional argument for the placement of possessives higher than adjectives. I analyze the final *j* sound of possessive forms as a reflex of their obligatory passage through Definite Phrase, which is on top of AgrP. Adjectives, on the other hand, support the definite morphology only in special circumstances, in which circumstances, I argue, they move into the DefP. It is for these reasons that I opt for the structure in (37).

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

Third person nouns/pronouns

Nominative

lep- čovek- 'handsome man'	on- 'he'
lep-**a** žena 'pretty woman'	on-**a** 'she'
lep-**e** žene 'pretty women'	on-**e** 'they-Feminine'
lep-**i** ljudi 'handsome men'	on-**i** 'they-Masculine'

Accusative

lep-o**g(a)** čoveka -animate	nje**ga/ga** (see Genitive)
lep- šešir -inanimate (Nominative!) 'nice hat'	*njega /ga (see Genitive)
lep-**u** ženu	nj**u** /j**u**-ACC or je-Genitive
lep-**e** ljud-e/žen-e (Nominative)	njih/ih (Genitive!)

Dative

lep-o**m(u**/e) čoveku	nje**mu/mu**
lep-**oj** ženi	nj**oj**/j**oj**
lep-**im(a)** ljudima/ženama	nj**ima**/**im**

Genitive

lep**e** žene	nj**e** (**je**, used only as Accusative)
lepo**g(a)** čoveka	nje**ga**
lep-**ih** ljudi/žena	nj**ih**

Instrumental

lep**om** ženom	nj**om**
lep**im** čovekom	nj**im**
lep**im** ljudima/ženama	nj**im**a

Possessive form

čovek**ov** kofer/čovek**ovom** koferu-Dative 'the man's suitcase'	njeg**ov**/njeg**ovom**
žen**in** kofer/žen**inom** koferu-Dative	njen/njenom (archaic: njez**in**/njez**inom**)
No plural possessive!	njihov/njihovom-DAT

First person pronouns

ja (I)	mi (we)	(Nominative)
mene/me	nas/nas	(Accusative)
meni/mi	nama/nam	(Dative)
mene	nas	(Genitive)
mnom	nama	(Instrumental)
moj	nas	(Possessive)

Second person pronouns

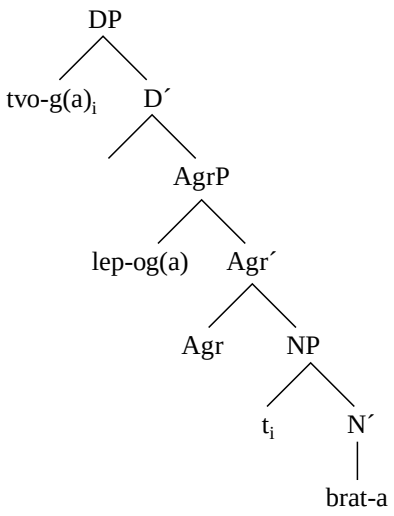
ti (you)	vi (you-PL)	(Nominative)
tebe/te	vas/vas	(Accusative)
tebi/ti	vama/vam	(Dative)
tebe	vas	(Genitive)
tobom	vama	(Instrumental)
tvoj	vaš	(Possessive)

Table 1

Adjectival and pronominal agreement in Serbo-Croatian

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

(37)



(38) nje-**ga** (him)

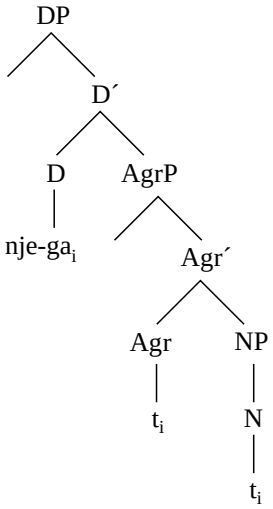


Table 1 gives a complete paradigm for masculine and feminine genders comparing the form of adjectival agreement to the form of the pronoun.[5]

Clitic pronouns, if any, are given immediately following the full pronoun.

[5] I leave out neuter gender from Table 1 because neuter gender does not seem to have distinct pronominal forms. In oblique cases, it takes masculine forms of pronouns. In the nominative case, although *ono*/*ona* may be quoted as neuter singular vs. plural forms, I cannot use these forms as pronouns, but only as demonstratives. Adjectival and nominal agreement with neuter gender follows the masculine pattern in the singular, and feminine (singular) pattern in the plural. The only exception is nominative singular, which has a distinct form ending in *o*. Due to this curious mixing of feminine/masculine and singular/plural features, neuter gender does not follow the pattern established in Table 1.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

In the case of inanimate nouns only a clitic pronoun can be used, as indicated by * in the data (see Cardinaletti & Starke (1994) for the same fact in other languages). The fact that clitic pronouns actually consist solely of the corresponding adjectival agreement (thanks to Anna Cardinaletti, pers. comm., for pointing this out to me), lends further support to the idea that AgrP is an extended projection of the NP.

In sum, the facts that pronouns have more morphology than nouns, and that this morphology coincides with agreement in the extended projection of NP, are best accommodated under the assumption that pronouns move through functional projections into D. The next question to address is the motivation for such movement. SC data are consistent with the Principle of Greed, providing evidence that pronouns move in order to satisfy their own special features, say referential features, rather than any feature of D.[6] If, instead, movement of pronouns was driven by a feature in D that needed to be checked, then nouns should be forced to move into D as well, thus obliterating the positional differences between nouns and pronouns established in this paper.

4. The definite i-phrase

In SC the so-called 'definite aspect' is marked on adjectives, and often corresponds to the use of definite articles in English. This marking is segmentally realized with masculine nouns in the nominative case, taking the form of *i* suffix. In other cases, it can be marked by a shift in accent (see Leko (1986) for a more detailed discussion and an analysis in terms of different X′ placement of the two types of adjectives):

(39) Nedostaje mi plav-**i** kaput.
misses me-DAT blue-DEF coat
'I am missing the blue coat.'

(40) Nedostaje mi plav kaput.
'I am missing/I need a blue coat.'

(41) Mudr-**i** čovek to ne bi uradio.
wise-DEF man that not would done
'The/that wise man would not have done that.' (specific interpretation)

(42) Mudar čovek to ne be uradio.
'A wise man would not have done this.'

[6] A reviewer points out, correctly, that instances of pronouns preceded by adjectives (i) do not provide evidence that pronouns are in N. This is so because full DPs, including additional adjectives, can occur after such adjectives, as in (ii). The reviewer suggests that such examples may be instances of copula-less predication.

(i) Jadan on!
'Poor him!'

(ii) Jadan onaj mali dečak!
'Poor that little boy!'

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

Predicate positions only license the short form:

(43) Ovaj kaput je plav/*plav-**i**.
'This coat is blue.'

Vocatives, on the other hand, only take the long form, constituting an exception to the general rule that the definite aspect in SC is translated with the definite article in English:[7]

(44) Tužni/*tužan čoveče, pridji bliže
sad man come closer
(45) (*The) Sad man, come closer.

Definite adjectival forms appear most naturally following possessives or demonstratives, in which position the short forms of some adjectives are ungrammatical, as (46)–(47) illustrate (see also footnote 4). This is reminiscent of Comp/Infl selection at the sentential level, namely the selection of *to* by *for* or a finite Infl by *that*. If so, then embedding the definite phrase under DP seems a natural step (see (48)).

(46) Tvoj drag-**i** prijatelj je upravo uhapšen.
'Your dear friend has just been arrested.'[8]
(47) *Tvoj drag prijatelj je upravo uhapšen.[9]

---

[7] Compounds are another exception. They necessarily take the long adjectival form, the short form resulting in the literal meaning of the adjective:

(i) slep-**i** miš/*slep miš
blind-DEF mouse
'bat'
(ii) bel-**i** luk/*beo luk
white-DEF ONION
'garlic'

This is surprising for another reason as well – compounds in English do not readily take inflectional morphology, compare: *billiard-table* vs. ??*billiards-table*.

[8] The (ironic) interpretation (46) receives is the following: '(to you dear) friend', and is not interpreted as '*your friend, who is dear'.

[9] In order to express the meaning of 'a dear friend of yours…', I would say (i) or, more naturally, (ii):

(i) ?jedan tvoj drag prijatelj
one your dear friend
(ii) Jedan od tvojih dragih prijatelja
one of your dear friends

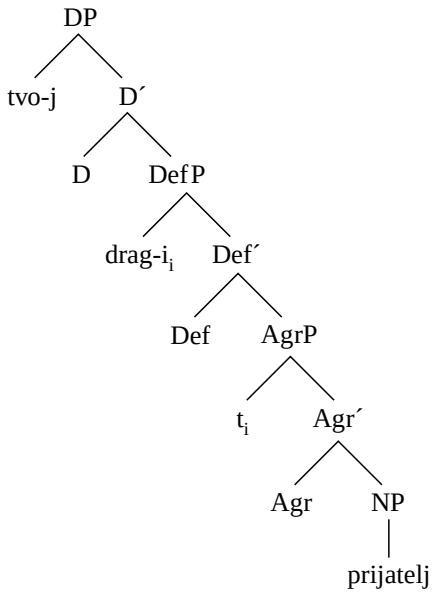
I am not sure how the role of the numeral, which makes the phrase indefinite, is to be captured syntactically.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

Possessives					
mo**j** 'my'	tvo**j** 'your'	nj**e**g-ov 'his'	/	Milan-ov	'Milan's'
		nj**e**-n 'her'	/	Milen-in	'Milena's'
naš 'our'	vaš 'your'	nj**i**h-ov 'their'			
Demonstratives					
ova**j** (this-Masc.)		ta**j** (this/that-Masc.)		ona**j** (that-Masc.)	

Table 2
Definite suffix with possessives and demonstratives

(48)



Curiously, although possessives take other adjectival suffixes (for example, tvojIH/plavIH (Genitive), tvojIMA/plavIMA (Dative), etc.), they appear not to take the definite *i* (*tvojI/plavI kaput). On the assumption that the possessive raises from the specifier of NP, being an argument of N (see footnote 4), it would also presumably move through the DefP and would be expected to have definiteness morphology.

Suppose that the definite suffix is already an integral part of possessives and demonstratives, given that they are inherently definite, which is phonologically realized as *j* in both. Table 2 above gives the possessive and demonstrative forms for masculine gender, nominative.

Possessive pronouns in the third person are formed by adding the typical nominal possessive suffix to the genitive form of the pronoun. As I am going to argue later, the pronominal forms may also contain the inherent marking

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

for definitness, in which case *j* in the third person paradigm can be seen as a phonological variant of the definite morpheme *i* that appears on adjectives. This move would make even more sense in the case of demonstratives and first and second person singular of possessives, which all end in *j*. Table 2 illustrates.

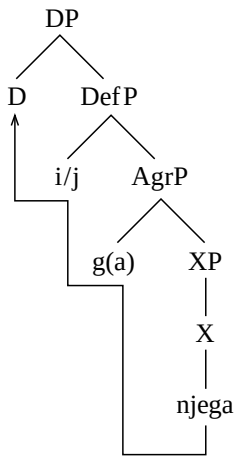
Naš and *vaš* in (49) can be analyzed as genitive followed by *j* which palatalizes the preceding sound. This kind of phonological rule, called Iotation, is common in Slavic (see, for example, Carlton 1990), and has the effect of *j* palatalizing the preceding consonant and then deleting, predicting exactly the forms in (49); see also Table 2:

(49) nas-GEN + j = naš
vas-GEN + j = vaš

It would make sense to think of pronouns, demonstratives and possessives as being inherently definite (none of them can, for example, appear with articles in English). If this is a correct assumption, then it would be too much of a coincidence that exactly these forms have the morpheme which otherwise appears on definite adjectives.

If this is on the right track, then *njega* 'him' can be represented as in (50) below:

(50)



Movement from X to D would check two relevant features of the pronoun: Adjectival agreement *ga* and definite aspect *i/j*. As pointed out to me by a reviewer, the ordering of morphemes does not follow Baker's (1988) Mirror Principle. This provides an argument for the recent proposals that movement involves checking of overt features, rather than actual picking up of morphological pieces (see, for example, Chomsky 1995). Since DefP must dominate AgrP, given that it is selected by DP, and given that adjectives may move into it from AgrP, movement that picks up pieces would yield the opposite ordering of pieces.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

5. Conclusion

This paper looks closely at pronouns in Serbo-Croatian, both at their external positions and their internal morphological structure, and reaches several empirical and theoretical conclusions. The fact that adjectives must follow pronouns, but must precede nouns, points to the conclusion that pronouns occur in D in syntax, in contrast to nouns. Since SC has no articles, the only evidence for a D position in the acquisition of SC would be the contrasts between pronouns and nouns when they appear with adjectives. Given that pronouns are used with adjectives only very rarely, it must be that the projection of a DP is a universal property which need not be learned from the input.

On the other hand, the fact that pronouns carry more pieces of morphology than nouns is captured by generating pronouns in N positions (or in a functional projection in between) and moving them overtly into D positions. The mechanism for acquiring morphology must involve checking of features, rather than picking up of pieces. The latter mechanism would produce unattested ordering of morphemes in SC pronouns. The data are best analyzed by adopting the Principle of Greed. The movement of pronouns prior to Spell-out must be driven by their own need to satisfy their referential features, rather than a referential feature of D, given that nouns, including proper names, cannot move to D in SC, at least not overtly.

References

Abney, Steven (1987). *The English Noun Phrase in its sentential aspect*. PhD. dissertation, MIT.
Avrutin, Sergey (1994). The structural position of bound variables in Russian. *Linguistic Inquiry* **25.4**. 709–727.
Baker, Mark (1988). *Incorporation: a theory of grammatical function changing*. Chicago: University of Chicago Press.
Brame, Michael (1981). The general truth of binding and fusion. *Linguistic Analysis* **7.3**. 277–325.
Brame, Michael (1982). The head-selector theory of lexical specifications and the nonexistence of coarse categories. *Linguistic Analysis* **10.4**. 321–325.
Cardinaletti, Anna (1993). On the internal structure of pronominal DPs. *University of Venice Working Papers in Linguistics* **3.2**. 1–20.
Cardinaletti, Anna & Starke, Michal (1994). The typology of structural deficiency on the three grammatical classes. Ms., University of Venice & University of Geneva.
Carlton, Terence R. (1990). *Introduction to the phonological history of the Slavic languages*. Columbus: Slavica.
Chomsky, Noam (1986). *Barriers*. Cambridge, MA: MIT Press.
Chomsky, Noam (1993). A minimalist program for linguistic theory. In Hale, Kenneth & Keyser, Samuel Jay (eds.) *The view from Building 20: essays in linguistics in honor of Sylvian Bromberger*. Cambridge, MA: MIT Press, 1–52.
Chomsky, Noam (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.
Cinque, Guglielmo (1990). Agreement and head-to-head movement in Romance NPs. Paper presented at the XX Linguistic Symposium on the Romance Languages, Ottawa.
Cinque, Guglielmo (1991). Functional projections and N-movement within the DP. Paper presented at the 15th GLOW Colloquium, Lisbon.
Cinque, Guglielmo (1993). On the evidence for partial N-movement in the Romance DP. Ms., University of Venice.

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press

Corver, Norbert (1992). On deriving certain left branch extraction asymmetries: a case study in parametric syntax. *Proceedings of the Northeast Linguistic Society* (*NELS*) **22**, University of Delaware. 67–84.
Giusti, Giuliana (1992). Heads and modifiers among determiners: evidence from Romanian and German. *University of Venice Working Papers in Linguistics* **2.1.4**. 1–19.
Giusti, Giulana (1995). The categorial status of determiners. Ms., University of Venice.
Gohre, David & Progovac, Ljiljana (1994). Determiner Phrase and morphology of reflexives. Paper presented at FLSM, Urbana/ Champaign.
Greenberg, Joseph H. (1966). Some universals of grammar with particular reference to the order of meaningful elements. In Greenberg, Joseph H. (ed.) *Universals of langauge*. Cambridge, MA: MIT Press. 73–113.
Huang, C.-T. James. (1982). Move *wh* in a language without *wh*-movement. *Linguistic Review* **1.4**. 369–416.
Leko, Nedžad (1986). *Syntax of noun headed structures in Serbo-Croatian and corresponding phrasal structures in English*. Ph.D. dissertation, Indiana University.
Longobardi, Giuseppe (1994). Reference and proper names: a theory of N-movement in Syntax and Logical Form. *Linguistic Inquiry* **25.4**. 609–665.
Postal, Paul (1969). On so-called 'pronouns' in English. In Reibel, David & Schane, Sanford (eds.) *Modern studies in English*. Englewood Cliffs, NJ: Prentice-Hall. 201–224.
Reinhart, Tanya & Reuland, Eric (1993). Reflexivity. *Linguistic Inquiry* **24.4**. 657–720.
Szabolcsi, Anna (1987). Functional categories in the noun phrase. In Kenesei, Istvan (ed.) *Approaches to Hungarian* **2**: *Theories and analyses*. Szeged. 167–191.
Yang, Dong-Whee (1983). The extended Binding Theory of anaphors. *Language Research* **19**, 169–192.

Author's address: English Department,
Wayne State University
51 W. Warren,
Detroit, MI 48202,
U.S.A.
E-mail: ad6003@wayne. edu

https://doi.org/10.1017/S0022226797006865 Published online by Cambridge University Press