

DP IN A MODEL NP LANGUAGE: EVIDENCE FROM SERBO-CROATIAN PERSONAL PRONOUNS*

MAŠA BEŠLIN

University of Maryland

1 Introduction

This paper is concerned with the structural size of personal object-pronouns in Serbo-Croatian (SC), a language whose nominal phrases have perhaps most prominently been claimed to lack the DP layer (Zlatić 1997, Bošković 2005, 2008, 2009, Bošković and Gajewski 2011, Despić 2011, 2013, a.o.). The pronominal system of SC has received its fair share of attention in the linguistics literature, but the attention has mostly been focused on its clitics, due to their famous second position requirement (see e.g., Schütze 1994, Stjepanović 1998, Bošković 1995, 2004). Unlike the clitics, full pronouns in SC have received almost no attention. Let us therefore start with Table 1, which gives a brief overview of the SC pronominal system.

	nominative	genitive		dative		accusative		instrumental
singular	<i>full</i>	<i>full</i>	<i>clitic</i>	<i>full</i>	<i>clitic</i>	<i>full</i>	<i>clitic</i>	<i>full</i>
I	ja	mene	me	meni	mi	mene	me	mnom(e)
II	ti	tebe	te	tebi	ti	tebe	te	tobom
III	on/ona/ono	njega/nje	ga/je	njemu/njoj	mu/joj	njega/nju	ga/ju	njim/njom(e)
plural								
I	mi	nas	nas	nama	nam	nas	nas	nama
II	vi	vas	vas	vama	vam	vas	vas	vama
III	oni/one/ona	njih	ih	njima	im	njih	ih	njima

Table 1: The Serbo-Croatian pronominal system

As already mentioned, SC personal pronouns may appear in two forms: full and clitic. In the table above, we see that nominative- and instrumental-marked pronouns have only full, non-clitic forms, while genitive-, dative- and accusative-marked pronouns can surface as either full pronouns

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or as clitics.¹ The paper will be concerned with those case forms that appear on objects, namely genitive, dative, accusative and instrumental. Another thing to bear in mind is that 3rd person pronouns (and nouns) in SC are marked for one of three grammatical genders: masculine, feminine or neuter. In the pronominal system, the three-way distinction is preserved only for nominative-marked 3rd person pronouns. The rest of the singular paradigm collapses together the masculine and neuter forms, opposing it to the feminine, while non-nominative plurals have only one form.

Full pronouns in SC display interesting distributional properties which set them apart from other noun phrases. I will show that the structural position of personal pronouns is higher than that of other nouns, both within the clause (Section 2) and within their own phrase (Section 3). In section 3, I will argue that the size of the pronominal phrase, namely the fact that it is a DP, is responsible for its movement within the clause. Other nominal phrases in SC are NPs which, in contrast to their DP counterparts, do not need to check features in a functional projection. The conclusions reached here will lend support to accounts that argue against attributing the NP/DP parameter to entire languages, but rather for a view that nominal phrases may come in various sizes within a single language (e.g., Pereltsvaig 2006, Pereltsvaig and Lyutikova 2014, Erschler 2019). Although the discussion will mostly be restricted to the behavior of full pronouns, I will offer some suggestions for a possible unification of full pronouns and clitics in the conclusion.

2 The Clausal Distribution of Full Object-pronouns

The first interesting property of full object-pronouns in SC is that their distribution under contrastive focus differs from that of other object NPs. The neutral word-order in SC is SVO, and a contrastively focused NP remains in situ (2a). On the other hand, a contrastively focused pronoun appears preverbally (2b). Notice that the NP and the pronoun contain the same number of syllables. It is therefore impossible to attribute the observed contrast to phonological lightness/heaviness of the phrase in question.²

- (2) Context: Imagine you are at the police station and you need to identify a suspect. There are two people behind the one-way mirror. For the answer in (a), the suspects you see are Madonna and Cher. For the answer in (b), you do not know the female suspects' name. The police officer asks you: "Who did (your friend) Peter see at the crime scene?"

- a. Petar je {?*ŠER} video {ŠER} (na mestu zločina).
 Peter AUX Cher seen Cher on place crime
 'Peter saw CHER (at the crime scene).'
- b. Petar je {NJU} video {?*NJU} (na mestu zločina).
 Peter AUX her seen her on place crime
 'Peter saw HER (at the crime scene).'

¹It seems at least possible that the reduced counterpart of the full nominative pronoun is *pro* (Cardinaletti and Starke 1999). For a discussion of why pronouns marked for instrumental case are excluded from the clitic system of SC, see Milićev and Bešlin 2019.

²Both the NP and the pronoun may move to the sentence-initial position under contrastive focus. I do not discuss this left-peripheral Focus position because it does not seem to be sensitive to the type of phrase it hosts; it can be occupied by pronouns and NPs, but also by adverbs and other types of adverbials, and even verbs and adjectives.

This distributional difference between contrastively focused NPs and pronouns holds for both direct and indirect objects, and regardless of the object's case form. Hence, for a contrastive context, parallel to the one given for (2), where the question is instead about an object marked for instrumental case, the same contrast obtains, as seen in (3).

- (3) a. Milan je {?*FORDOM} upravljao {FORDOM} (u trenutku nesreće).
 Milan AUX Ford.INS driven Ford.INS in moment accident
 'Milan was driving A/THE FORD (at the time of the accident).'
- b. Milan je {NJIME} upravljao {?*NJIME} (u trenutku nesreće).
 Milan AUX him.INS driven him.INS in moment accident
 'Milan was driving IT (at the time of the accident).'

At first sight, a possible analysis of this phenomenon would involve positing a low left periphery in SC, immediately above the VP/vP area (Belletti 2001, 2004), as illustrated in (4). Parallel to the CP periphery, this area has been argued to host clause-internal Topic and Focus projections. We could then attempt to claim that contrastively focused object pronouns move to this low Focus position.

- (4) [TP. . . [FOCUS .
 . . [TOPIC]. . . [vP . . .]]]

One mystery that would remain under such an account, however, is why pronouns and other NPs should behave differently in this respect. Of course, it is possible to claim that focused pronouns have a strong focus feature, [F*], and that this feature is weak on their nominal counterparts, [F]. The low Focus position would need to have a matching [F]. Adopting the principle of Greed (Chomsky 1993), whereby α moves only if α has a feature that needs to be checked, we get the desired result: object pronouns, but not object NPs, move to the preverbal Focus position. Such an analysis would, however, amount to a formal restatement of the facts, and would have little explanatory power.³

A more serious problem for this type of approach is an empirical one. Stojanović (1997:307) observes that non-focused full pronouns also appear in the preverbal position, as seen in (5) below.⁴ This observation seriously undermines any explanation that aims to attribute the distribution of pronouns to their information-structural properties. In what follows, I also show that Stojanović's account of data like (5) cannot be extended to cover our focused pronouns in (2) and (3). It seems necessary to develop an account that does not make reference to the information-structural import of these pronouns.

- (5) Marija {njega} sreće {?*njega} svaki dan.
 Mary him meets him every day
 'Mary meets him every day.'

³It would also remain unclear why, then, both pronouns and other NPs can move to the sentence-initial (high) Focus position. It would have to be the case that the two Focus positions have distinct Focus-related features, and that only the high position can satisfy the Focus features of all nominals, while the low position could only do so for pronouns. This would perhaps be the desirable result if we saw systematic differences in the interpretation of phrases that occupy the two Focus positions. To the best of my knowledge, this is not the case in SC.

⁴Stojanović does not give a context for (5), but the focus is presumably on the temporal adverbial. (5) could be uttered as a response to a question like "When will Mary meet John next?"

A note on terminology before we proceed. Stojanović considers elements like *njega* ‘him’ in (5) to be “weak pronouns”, invoking Cardinaletti and Starke’s (1995) tripartite division of pronouns into strong, weak and clitic. While it is clear that SC makes a distinction between full pronouns and clitics (see Table (1) above), it is less clear that it makes a formal distinction between strong and weak forms. For example, according to Cardinaletti & Starke, coordination and modification should be possible only with strong pronouns, and strong pronouns should be restricted to animate referents. However, as shown in (6), SC pronouns with inanimate referents readily undergo coordination and modification. For this reason, I will continue to use the terms “(contrastively) focused pronoun” and “non-focused pronoun”, instead of the more established terms “strong” and “weak” pronoun.

- (6) a. Onaj crveni telefon je moj. On i ovaj drugi su juče stigli sa opravke.
 that red phone.M is my he and this other AUX yesterday arrive from repair
lit. ‘That red phone is mine. Him and this other one came back from repair yesterday.’
- b. Izabra-ću ovu stolicu. Samo nju mogu da zamislim u svom stanu.
 choose-FUT this chair.F only her can DA imagine in my apartment
lit. ‘I will choose this chair. I can only imagine her in my apartment.’

The analysis of non-focused pronouns proposed in Stojanović (1997) attributes the pronoun’s position to semantically conditioned object shift. Specifically, Stojanović argues that SC pronouns undergo object shift of the Scandinavian type, which is licensed by verb movement (Holmberg’s generalization, Holmberg 1986). She claims that the SC verb always moves, even if the movement is very short. This assumption, however, is not uncontroversial. Consider first (7a-b). The ambiguity of these French examples has been taken to indicate that the French verb moves above both manner (VP/vP) and sentential (TP) adverbs. In contrast, the ungrammaticality of the English equivalent is standardly taken to show that English verbs do not raise outside the VP/vP.

Stjepanović (1999) notes that SC verbs can cross manner but not sentential adverbs (as in (7c)), and concludes that SC verbs can move as high as T. However, she also notes that this movement is optional, since the adverb can have both a manner and a sentential interpretation if it precedes the verb (as seen in (7d)). If we pronominalize the object in (7d), resulting in (7e), the pronoun will still appear preverbally, despite the fact that the verb has not moved. We therefore have reason to doubt that verb movement licenses the pronoun’s preverbal position. However, it is not entirely clear that this diagnostic is reliable for the pronoun cases, because it is possible that the adverb in (7e) on the manner interpretation is not in its base, VP-adjoined position. The main reason to think this is that the focus in (7e) is obligatorily on the adverb (hence the pronoun in (7e) cannot be contrastively focused).

- (7) a. Jean répond correctement à Marie.
 Jean replies correctly to Marie
 ‘Jean is giving Marie a correct answer.’
 ‘Jean is doing the right thing in answering Marie.’
- b. *John answered correctly Mary.
- c. Marko savetuje mudro Mariju.
 Marko advises wisely Marija
 ‘He is advising Marija in a wise manner.’
 ‘*It is wise of him to advise Marija.’

- d. Marko mudro savetuje Mariju.
 Marko wisely advises Marija
 ‘Marko is advising Marija in a wise manner.’
 ‘It is wise of Marko to advise Marija.’
- e. Marko mudro nju savetuje.
 Marko wisely her advises
 ‘Marko is advising Marija in a wise manner.’
 ‘It is wise of Marko to advise Marija.’

For SC periphrastic tenses, the situation regarding verb movement is similarly unclear. Stojanović argues that, for those tenses that contain participles (which agree with the subject in gender and number), the participle must move to a functional projection to check its ϕ -features (Kayne 1993). This movement is claimed to be very short, and it is impossible to observe it on the surface. Although such an analysis of periphrastic tenses is already somewhat dubious, it is particularly difficult to find motivation for movement in periphrastic tenses whose lexical verb is in the infinitive form. This is because the infinitive has no ϕ -features to satisfy, and yet the pronoun still appears preverbally, as seen in (8). It therefore seems impossible to argue convincingly that the pronoun’s position in SC is tied to verb movement. I should note that object shift has more recently been argued for in languages where it is clearly not tied to verb movement. One such language is Sakha, a Turkic language discussed in Baker and Vinokurova (2010). Object shift in Sakha is, however, closely tied to case assignment, and only objects that have moved out of the VP are marked for accusative case. No such analogues are found for SC, whose objects carry morphological case-marking regardless of their position.

- (8) Marija će njega sreta-ti svakog dana u isto vreme.
 Mary will him meet-INF every day at same time
 ‘Mary will meet him every day at the same time.’

Leaving the technical details of Stojanović’s analysis aside, let us address the motivation she argues is behind the pronoun movement. According to Diesing’s (1992) Mapping Hypothesis, VP maps onto the nuclear scope, or the domain of existential closure, which forces those variables bound by existential closure to be interpreted as new to the discourse. Diesing and Jelinek (1995) argue that, in order to comply with this condition, variables introduced by definites (which are old information) must move out of the scope of the existential closure operator. Stojanović claims that (non-focused) personal pronouns, which are always definite, move due to a requirement to extract definite elements out of the domain of the existential operator.

A full discussion of Diesing & Jelinek’s proposal is beyond the scope of this paper, but there are a couple of issues with applying this analysis to the distribution of pronouns in SC which need to be addressed. First, it is not at all clear under this view why the movement operation targets only pronouns, and does not apply to, for example, definite descriptions, as in (9). The issue is even more pressing given that SC is a language without articles, where a noun like *miš* ‘mouse’ can receive either a definite or an indefinite interpretation depending on the context. Under Diesing & Jelinek’s analysis, we would expect that in situ objects would at least be forced to have an indefinite interpretation, but (9), where the object that follows the infinitival verb is interpreted as definite, clearly shows that this is not the case.

- (9) Context: You know that a mouse has been roaming around my family house for a while, and we have been unable to catch it. We are talking about putting the house on the market, and I tell you:

Nada-mo se da će naša mačka uskoro ulovi-ti miša.
 hope-1PL SE DA will our cat soon catch-INF mouse
 ‘We hope that our cat will catch the mouse soon.’

Another issue is that Diesing & Jelinek’s analysis was intended to exclude stressed pronouns, which do not pattern with unstressed pronouns in the Germanic languages they analyze. They argue that stressed pronouns are deictic or contrastive in nature, and that they function as new information. Therefore, they can remain within the VP. This is decidedly not the result we want to achieve for SC, where all full pronouns (stressed and unstressed) pattern one way, appearing preverbally, to the exclusion of all other nominal phrases, both definite and indefinite.

So far, we have seen that analyses which aim to derive the pronouns’ position from their information-structural properties are bound to apply to only part of the relevant SC data (i.e. only the non-focused pronouns on Diesing & Jelinek’s account, and only the focused pronouns on a focus-movement account). In light of these findings, I will attempt to argue that the position of SC full personal pronouns derives from syntactic considerations. To that end, it will be helpful to determine their precise position. So far, we have only shown that the said position is preverbal. Can we be more specific than that? First, we can clearly see in (10) that preverbal pronouns are not clitics, either to the auxiliary or to the lexical verb, since parentheticals can easily separate the pronoun from both of these positions. Second, we can use the position and interpretation of adverbs to tell us about the pronoun’s position. Consider (11). Although an adverb like *mudro* ‘wisely’ is generally ambiguous between a manner and a sentential reading (cf. (7d-e)), in this particular configuration its only possible interpretation is the manner one. Under the assumption that manner adverbs attach to VP/*v*P, we can claim that the pronoun is located outside it. Finally, (11) also shows that the pronoun is located below the negation + auxiliary complex, situated in T.⁵ We can therefore conclude that the pronoun occupies a projection in between VP/*v*P and TP, as shown schematically in (12).

- (10) Petar je (čini mi se) NJU/nju (čini mi se) video na mestu zločina.
 Peter AUX seems me SE HER/her seems me SE seen on place crime
 ‘It seems to me that Peter saw HER/her at the crime scene.’

- (11) Marko (juče) ni-je NJU/nju mudro savetovao.
 Marko yesterday NEG-AUX HER/her wisely advised
 ‘Yesterday, Marko did not advise HER/her in a wise manner.’

- (12) TP yesterday [TP NEG-AUX [XP HER/her_i [*v*P/VP wisely [*v*P/VP advised t_i]]]]

⁵The reason I use the negated auxiliary here is that it is not a clitic. SC clitics are obligatorily moved to the second position in the clause, and this requirement is prosodic in nature (see Bošković 2004). As can be seen in (11), the negated auxiliary is in third position, and it follows the TP-adverb *juče* ‘yesterday’.

One obvious candidate for XP is AgrOP, a position to which DPs raise to have their Case features checked (Chomsky 1993). Spec AgrO is an A-position; therefore, if the pronoun is moving there, we should be able to detect the effects of A-movement. Indeed, there are some indications that this is the case. To see this, recall first that A-movement, but not A'-movement, creates new antecedents for binding. In addition to this, there are several relevant properties of SC. First, clause-internal scrambling in SC is A'-movement (Stojanović 1994). Second, the object-pronouns we have been discussing have both pronominal and anaphoric uses. Third, SC possessive adjectives c-command out of their phrase, while possessive genitives do not (Despić 2013). Finally, dative arguments are generated higher than accusative arguments, which I illustrate with (13). In (13a), *Mariji* 'Mary' and *njenu* 'her' are co-indexed, and the sentence is grammatical. This is explained by the fact that *njenu* 'her' is used as an anaphor, and it is c-commanded by *Mariji*. In (13b), the c-command relation is reversed. Recall that possessive adjectives in SC c-command out of their phrase. Therefore, *njenoj* 'her' will bind the R-expression *Mariju*, causing a Condition C violation. Additionally, (13c) suggests that the issue in (13b) is indeed that the R-expression is being bound. Once the possessive adjective is replaced by a possessive genitive phrase, which does not c-command out of the dative object, the accusative object *Mariju* is no longer bound, and the problem does not arise.

- (13) a. Anja je pokazala Marij-_i njen-u_i sestr-u.
 Anja AUX showed Mary-DAT her-ACC sister-ACC
 'Anja showed Mary her sister.'
- b. *Anja je pokazala njen-oj_i sestr-i Marij-u_i.
 Anja AUX her-DAT sister-DAT showed Mary-ACC
 'Anja showed Mary to her sister.'
- c. Anja je pokazala mam-i njen-e_i drugaric-e Marij-u_i.
 Anja AUX showed mom-DAT her-GEN friend-GEN Mary-ACC
 'Anja showed Mary to her friend's mom.'

Now consider (14). There should in principle be nothing wrong with the structure of (14) prior to the pronoun movement; the accusative pronoun (anaphor) should be c-commanded by the dative R-expression, as in the well-formed (13a). The ungrammaticality of (14) on the intended reading suggests that the pronoun has A-moved to a position from which it c-commands the R-expression, resulting in a Condition C violation.

- (14) *Anja je njega_i predstavila brat-ov-oj_i učiteljic-i t_i.
 Anja AUX him.ACC introduced brother-POSS-DAT teacher-DAT
 'Anja introduced him to her brother's teacher.'

I have argued that SC personal object-pronouns A-move to a preverbal position. In the next section, I show that they also seem to occupy a higher position within their own phrase than do other nouns, and I argue that this is because SC pronouns, unlike other SC nominal phrases, are DPs. Once we have evidence that the pronouns are DPs, this will enable us to motivate their movement within the clause as movement to check D-related features in Spec, AgrOP.

3 The Structure of the Pronominal Phrase

3.1 An Excursus on the Structure of NP in SC

Before we dive into a discussion of the structure of pronominal phrases, it is necessary to understand the received wisdom on the structure of SC nominal phrases, since it is significantly different from what is taken to be the standard for English. Since Abney (1987), English (and many other languages') nominal phrases have standardly been assumed to be DPs. In other words, the noun in a phrase such as *the dog* is taken to be dominated by a determiner which projects its own phrase (the DP), and serves as the head of the nominal phrase.

Despite the general inclination to extend the DP-hypothesis to all languages, a large body of literature has been put forth to argue that NPs in SC – and in other article-less languages that pattern with it – should be analyzed as lacking a D layer. Nominal phrases in these languages are instead treated as bare NPs (Fukui 1988, Corver 1992, Zlatić 1997, Chierchia 1998, Willim 2000, Trenkić 2004, Bošković 2005, 2008, 2009, Despić 2011, 2013, a.o.).⁶ Some of the first arguments for the NP-analysis of SC nominal phrases centred around the fact that SC lacks articles, the prototypical members of D. While SC does have items like demonstratives and possessives, there is good evidence that these behave like ordinary adjectives. In (15a), we can see that demonstratives and possessives inflect for gender, number and case in a completely parallel way to other adjectives. Not only are these elements morphologically adjectives, but they also occupy typical adjectival positions (as in (15b)), and they can stack, unlike in English (as in (15c)). For other arguments in support of the NP-hypothesis, see the works cited above.

- (15) a. t/tvoj-im mlad-im rođaka-ma
 those/your-FEM.PL.INSTR young-FEM.PL.INSTR cousin-FEM.PL.INSTR
 b. Ta knjiga je moja.
 that book is my
 c. ta moja knjiga
 that my book

This hypothesized structural difference between nominal phrases in languages with and without the determiner layer has been argued to underpin a number of systematic differences between them. In (16), I enumerate some of the differences between languages with articles (DP languages) and languages without articles (NP languages) discussed in Bošković (2008).

- (16) a. Only languages without articles may allow left-branch extraction.
 b. Only article-less languages may allow adjunct extraction from NPs.
 c. Only languages without articles may allow scrambling.
 d. Languages without articles disallow negative raising (more specifically, strict NPI licensing under negative raising) and those with articles allow.
 e. Only languages with articles may allow clitic doubling.
 f. Languages without articles do not allow transitive nominals with two non-lexical genitives.
 g. Only languages with articles allow the majority superlative reading.

⁶This view is not uncontroversial; see Pereltsvaig (2013) for an overview of the issues.

- h. Head internal relatives are island sensitive in languages without articles, but not in those with articles.

Here, I elaborate only on (16a), which will be the most important generalization in our discussion of pronouns in Section 3.2. Our conclusions about left-branch extraction (LBE) will directly generalize to (16b), since the element that moves in the two cases arguably occupies the same structural position. For details regarding (16c-h), the reader is referred to Bošković (2008) and subsequent work. Unlike English, SC allows LBE, as can be seen in (17a-b).

- (17) a. Skupa / ta_i je kupio [t_i kola].
 expensive those AUX bought cars
 b. *Expensive / those_i he bought [t_i cars].

Bošković (2005) offers an analysis of the contrast in (17a-b) which builds on the hypothesized distinction between the nominal phrase in SC (NP) and its counterpart in English (DP). The analysis is based on the Phase Impenetrability Condition (PIC), which says only the Spec of a phase is accessible for phrasal movement outside the phase (so, XP movement from a phase YP must proceed via Spec, YP). Furthermore, Bošković adopts a contextual approach to phases, arguing that the highest projection of a phrase is a phase. Therefore, DP is a phase in English, while NP is a phase in SC. Given the PIC, XP can then move out of the English DP only if it moves to Spec, DP, and out of the SC NP only if it first moves to Spec, NP.

There are two more ingredients of the analysis: the traditional assumption that AP is NP-adjoined and the anti-locality hypothesis (the ban on movement that is too short), which is deducible from independent mechanisms and argued for by many authors (e.g., Grohmann 2003, Abels 2003, a.o.). The version of anti-locality adopted in Bošković (2005) requires Move to cross at least one full phrasal boundary (not just a segment). In (18a), which would be a precursor to the ungrammatical LBE construction in (17b), the AP cannot move to Spec, DP due to anti-locality. Given the PIC, the English AP cannot move directly out of DP either (18b). The PIC/anti-locality problem with LBE does not arise in SC because the NP-adjoined AP is already at the edge of the NP phase, and it is free to move onward from this position (18c).⁷

- (18) a. *[DP AP_i [D' D [NP t_i [NP ...
 b. *AP_i [DP [D' D [NP t_i [NP ...
 c. [NP AP [NP ...

Assuming the NP/DP distinction has allowed linguists to explain many of the generalizations in (16), and more, using the same or similar mechanisms as the ones shown here for LBE. Let us now consider the size of SC pronominal phrases, which have not as yet been used in discussions of the NP/DP distinction.

3.2 The Size of the Pronominal Phrase and the Position of the Pronoun

The first suggestion that SC pronouns differ structurally from other nominal phrases is offered by Progovac (1998). She observes that those adjectives that can appear with pronouns must

⁷This analysis correctly predicts that complement movement out of nominal phrases is possible in English (cf. *Who_i do you like friends of t_i?*) and impossible for its SC equivalent (**Koga_i si voleo prijatelj_e t_i?*).

obligatorily follow them, while the same adjectives uniformly precede nouns, as seen in (19).⁸ Assuming that the adjectives in these cases occupy a fixed structural position, Progovac argues that this noun/pronoun asymmetry is best accounted for by placing SC pronouns in D, and nouns in N.

- (19) a. ?*I samu nju / mene to nervira.
and alone her me that irritates
'That irritates even her/me'
b. I nju / mene samu to nervira.
c. I samu Mariju to nervira.
and alone Mary that irritates
'That irritates even Mary'
d. ?*I Mariju samu to nervira.

Nonetheless, Progovac's data does not actually show that pronouns occupy the D position specifically, only that they occur in a structurally higher position than other nominals. Additional evidence is needed to determine the identity of the projection they occupy. If pronouns project DPs, they should behave like English DPs with respect to the generalizations in (16). Unfortunately, independent reasons prevent us from testing most of the generalizations in (16) directly with pronouns. For example, personal pronouns do not undergo *wh*-movement (16c), nor can they have complements, which would be necessary to test (16g). However, there are two contexts that are readily testable with pronouns, namely LBE (16a) and adjunct extraction (16b). Recall that SC nominals allow both LBE and (PP) adjunct extraction, unlike their English counterparts. If SC pronouns are DPs, they should pattern with English in disallowing LBE and adjunct extraction, regardless of their position. This is exactly the result that we see in (20). In (20a), we observe that the PP modifier cannot subextract from a pronominal phrase, while (20b) shows the same for an adjectival modifier. In (21), I show that the same modifiers can undergo LBE/adjunct extraction with other SC nominals. Finally, (22) shows that these modifiers are available with pronouns in their base position.^{9,10}

- (20) a. *Sa kakvom kosom je {nas} voleo {nas}?
with what-kind hair AUX us loved us
b. *Jadne_i je {nas} video {nas}.
poor AUX us seen us
- (21) a. Sa kakvom kosom je voleo devojke?
with what-kind hair AUX loved girls

⁸Progovac shows that the asymmetry in (19) holds regardless of the case-marking on the noun/pronoun.

⁹Polinsky (2018) offers a slightly different, but complementary explanation as to why subextraction is impossible with personal pronouns in Russian. She argues that this is just one of a number of different cases where the presence of a [person] feature on DP makes a phrase an island for subextraction. For this explanation to work, we would need to assume that SC 3rd person pronominal, but not 3rd person nominal phrases, contain a [person] feature. This is one of the parametric options considered in Polinsky's account; the other option is that 1st and 2nd person pronominal phrases pattern together, to the exclusion of 3rd person nominal and pronominal phrases.

¹⁰I will have to leave the issue of why modified pronouns are most natural in the postverbal position for future research; this may have to do with phonological weight.

- b. Jadne je video ljude.
poor AUX seen people
- (22) a. Voleo je nas sa crvenom kosom.
loved AUX us with red hair
- b. Voleo je nas jadne.
loved AUX us poor

Additional evidence for the DP status of SC personal pronouns comes from modification. If pronouns in SC were NPs, it would be natural that they could be modified with all sorts of NP-adjoined material. This is in fact true of Japanese (23a-c), whose pronouns have been argued to be NPs (Kuroda 1965, Fukui 1988, Noguchi 1997). However, this is not the result we get for SC. The only kind of modifiers available with SC pronouns are exactly those available with English pronouns, standardly taken to be DPs (23d-e). This data is straightforwardly explained if SC pronouns are also DPs.

- (23) a. tiisai kare / sinsetuna kanozuyo (Kuroda 1965:105)
small he kind she
- b. watasi-no kare / kono kare (Noguchi 1997:777)
I-GEN he this he
- c. ōkina boku / utsukushī anata (Hisao Kurokami, p.c.)
big me beautiful you
- d. jadni mi / ona u zelenom kaputu
poor us her in green coat
- e. *veliki / *crveni / *Markovi / *ti oni
big red Marko's those they

We have seen evidence that (i) SC pronominal phrases are larger than other nominal phrases, and (ii) the additional structure present in pronouns is the D layer. Following Chomsky (1993), I propose that SC pronominal object-DPs raise to Spec, AgrOP where their Case features are checked. Failure to reach this position will result in ungrammaticality, if the object is a DP. Non-DPs (i.e. other nominal phrases, PPs, and clauses), on the other hand, do not raise to Spec, AgrOP. For concreteness, we may suggest that the AgrO head has a strong unvalued D feature [uD^*]. If there is a pronoun in object position, the probe on AgrO will find a suitable goal and the D-related features on the pronoun will be checked. If, on the other hand, the object is a different kind of nominal (i.e., NP), the probe will still look for a suitable goal, but it will not find one. I assume that nothing goes wrong with such derivations since probing is free to happen and fail (see Preminger 2011, 2014 for the domain of ϕ -agreement).

4 Conclusion

Summing up, in this paper we considered the behavior of pronominal objects in SC and compared it to the behavior of other nominal objects. We concluded that the distribution of object pronouns within the clause cannot be explained by appealing to their information-structural properties. Instead, we pursued a syntactic account, based on several observations suggesting that SC

pronominal phrases contain more structure than other nominal phrases. Finally, we proposed that SC pronouns are DPs, unlike other nominal phrases which have been extensively argued to be NPs. Being DPs, pronouns must raise to Spec, AgrOP in order to check their Case features.

I would like to make a couple of further concluding remarks. The first one concerns clitics. I would like to point out that the account offered here for the distribution of full object-pronouns may very well extend to SC object-clitics. SC object clitics have been analyzed as ambiguous X/XP structures, and have in fact been independently argued to move to Agr positions (AgrIO and AgrO) in the syntax (for the motivation behind this move, see Bošković (2016) and the references there). Many authors have suggested that clitics move overtly for Case-checking, exactly the same motivation that was proposed for full object-pronouns in SC. If we maintain that only the presence of D forces movement for Case-checking, and combine this with the assumption that SC clitics are ambiguous X/XP structures, we may hypothesize that they are a spellout of D/DP (with no embedded NP). This goes well with proposals where the [person] feature is found inside the D projection, since SC clitics are essentially just a spellout of person, number, case (and gender) features. The account offered in this paper has the potential to unify the syntactic behavior of all SC personal pronouns in a principled manner.

Finally, based on her findings about the position of pronouns with respect to *even*, which we illustrated in (19), Progovac (1998) concludes that a DP should be posited for all nominal phrases in SC. The reason is simple: For her, the only evidence the child has for the existence of DP in SC comes from data like (19), and such data is extremely sparse. She therefore speculates that the projection of a DP is a universal property which need not be learned from the input. However, this reasoning does not take into consideration all relevant facts. In addition to data from *even*-placement, the child has access to data from subextraction, modification, and perhaps most obviously, from the clausal distribution of pronouns. All of these differentiate pronominal and other nominal phrases. The child may therefore have sufficient data to hypothesize about their different structural properties, and the NP-hypothesis could be maintained for at least some SC nominal phrases. The picture that emerges is one in which different sized nominal phrases co-exist in a single language (see Pereltsvaig 2006, Pereltsvaig and Lyutikova 2014, Erschler 2019) (see Pereltsvaig 2006).

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