

*DP in a model NP language:  
Evidence from Serbo-Croatian personal pronouns*

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# Outline of the talk

- Empirical observation: The distribution of Serbo-Croatian (SC) **full personal pronouns**, both within their own phrase and within the clause, differs from the distribution of other nominal phrases:
  - (i) object-pronouns move to a preverbal position;
  - (ii) the same modifiers that follow pronouns precede all other nominals;
  - (iii) modified pronouns do not allow LBE/PP adjunct extraction;
  - (iv) personal pronouns do not have the same modification possibilities as other nominal phrases
- Claim: Full personal pronouns in SC are DPs; unlike non-DPs (other nominal phrases, PPs, and clauses) they need to move to spec Agr to check D-related features

# The puzzle: Clausal distribution

- **Contrastively focused full pronouns** in SC move preverbally; other focused NPs stay in situ (DO & IO, regardless of case-form)

(1) Context: Imagine you are at the police station and you need to identify a suspect. There are two people behind the one-way mirror, and you are supposed to choose. 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)'

# The puzzle: Clausal distribution

- **Non-focused full pronouns** also appear in the preverbal position (Stojanović 1997:307)

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

- Stojanović does not give a context for (2), but the focus is presumably on the temporal adverbial. (2) can be uttered as a response to a question like "When will Mary meet John next?"
- Taken together, (1) and (2) undermine potential analyses that appeal to the information structure properties of the pronouns in question, e.g., movement to a low focus position (Belletti 2001, 2004) or movement out of the domain of existential closure (Diesing 1992, Diesing & Jelinek 1995)

# The puzzle: Clausal distribution

- Instead, I will offer evidence that SC personal pronouns are DPs; as such, they move to a dedicated functional projection to check D-related features, e.g. Case features (Chomsky 1993), as shown in (3)

(3) [TP *Petar je* [AGROP *nju<sub>i</sub>* [VP/VP *video t<sub>i</sub>* ]]]

- In this respect, they differ from other nominal phrases in SC, whose NP status has been argued for extensively
- The picture that emerges is one in which different sized nominal phrases co-exist in a single language (Pereltsvaig 2006, Pereltsvaig & Lyutikova 2014, Erschler 2019)

# Some background on NP in SC

- A large body of literature has been put forth to argue that nominal phrases in SC—and in other article-less languages that pattern with it—lack the D layer (Fukui 1988, Corver 1992, Zlatić 1997, Bošković 2005, 2008, 2009, Despić 2011, 2013, a.o.; contra Pereltsvaig 2013)
- SC lacks articles, the prototypical members of D
- It has items like demonstratives and possessives, but they behave like ordinary adjectives (4)

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

# Some background on NP in SC

- Some of the differences between languages with articles (DP languages) and languages without articles (NP languages) discussed in Bošković 2008 are in (5)
  - (5) 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.
  - h. Head internal relatives are island sensitive in languages without articles, but not in those with articles.

# Even placement

- Progovac 1998 observes that those adjectives that can appear with pronouns must obligatorily follow them, while the same adjectives uniformly precede nouns (6)

(6) 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.



# Even placement

- Assuming that the adjectives in (6) 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 (but see Despić 2014, Jurczyk 2020)
- However, 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.

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# Extraction

- In SC, unlike in English, nominal adjuncts can undergo extraction (7)-(8)

(7) a. Skupa<sub>i</sub> je kupio [t<sub>i</sub> kola].  
expensive AUX bought cars

b. \*Expensive<sub>i</sub> he bought [t<sub>i</sub> cars].

(8) a. Iz kog grada<sub>i</sub> je upoznao [devojke t<sub>i</sub>]?  
from which city AUX met girls

b. \*From which city<sub>i</sub> did he meet [girls t<sub>i</sub>]?

- An influential analysis attributes this asymmetry to the NP/DP parameter (Bošković 2008, 2009)

- The analysis is based on the Phase Impenetrability Condition (PIC): Phrasal movement is accessible only to elements that are at the edge of a phase (so, XP movement from inside a phase YP must proceed via SpecYP)
- Bošković proposes that the highest projection of the nominal phrase is a phase–NP in SC and DP in English
- There are two more ingredients of the analysis: the traditional claim that adjuncts are NP-adjoined and the anti-locality hypothesis in (9), due to Abels 2003

(9) Phrasal movement must cross at least one full phrasal boundary.

- In (10a), the precursor to the English (5b), the AP cannot move to Spec, DP due to anti-locality
- Given the PIC, the English AP can't move directly out of DP either (10b)
- The PIC/anti-locality problem with LBE does not arise in SC, because the adjunct AP is already at the phase edge (10c)

- (10) a. \*[DP AP<sub>i</sub> [D' D [NP t<sub>i</sub> [NP ...  
b. \*AP<sub>i</sub> [DP [D' D [NP t<sub>i</sub> [NP ...  
c. [NP AP [NP ...

# Extraction from pronominal phrases

- Crucially, pronominal phrases in SC pattern with English DPs w.r.t. subextraction:

- (11) a. \*Iz kog grada<sub>i</sub> je upoznao [njih t<sub>i</sub>]  
           from which city AUX met them
- b. \*Jadne<sub>i</sub> je juče video [t<sub>i</sub> nas].  
           poor AUX seen us
- (12) a. \*Iz kog grada<sub>i</sub> je [njih t<sub>i</sub>] upoznao?  
           from which city AUX them met
- b. \*Jadne<sub>i</sub> je juče [t<sub>i</sub> nas] video.  
           poor AUX yesterday us seen

# Modification possibilities

- 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 (13), whose pronouns have been argued to be NPs (Kuroda 1965, Fukui 1988, Noguchi 1997)

- (13) a. tiisai kare / sinsetuna kanozyo (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



# Modification possibilities cont'd

- This is decidedly not the result we get for SC; SC pronouns pattern with the English DP pronouns in (dis)allowing the same types of modifiers (14)

- (14) a. jadni mi / ona u zelenom kaputu  
 poor us her in green coat
- b. \*veliki / \*crveni / \*Markovi / \*ti oni  
 big red Marko's those they

# Structural position

- So far, we have only shown that object pronouns in SC appear in a preverbal position

→ Can we be more specific than that?

- We can clearly see that these 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

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

## Structural position cont'd

- We can use the position and interpretation of adverbs to tell us about the pronoun's position
- Although an adverb like *mudro* 'wisely' is generally ambiguous between a manner and a sentential reading, in (16) its only possible interpretation is the manner one
- Under the assumption that manner adverbs attach to VP/vP, we can claim that the pronoun is located outside it
- (16) also shows that the pronoun is located below the negation + auxiliary complex, situated in T

(16) Marko (juče) ni-je NJU/nju mudro savetovao  
 Marko yesterday not-AUX HER/her wisely advised  
 'Yesterday, Marko did not advise HER/her in a wise manner'

# Structural position cont'd

- We can conclude that the pronoun occupies a position in between VP/vP and TP (17)

(17) [TP *juče* [TP *nije* [XP *NJU/nju<sub>i</sub>* [vP/vP *mudro* [vP/vP *savetovao t<sub>i</sub>*]]]]]

- I propose that this position is spec AgrOP, to which the pronoun moves to check its D-related features

# Evidence for A-movement

## Some starting assumptions:

- A-mvt, but not A'-mvt can create new antecedents for binding
- Clause-internal scrambling in SC is A'-mvt (Stojanović 1994)
- *N-pronouns* in SC have both pronominal and anaphoric uses
- SC possessive adjectives c-command out of their phrase, possessive genitives do not (Despić 2013)
- Dative arguments are generated higher than accusative arguments (18):

- (18) a. Anja je pokazala Marij-<sub>i</sub> njen-u<sub>i</sub> sestr-u.  
 Anja AUX showed Mary-DAT her-ACC sister-ACC  
 'Anja showed Mary her sister'
- b. \*Anja je pokazala njen-oj<sub>i</sub> sestr-i Marij-u<sub>i</sub>.  
 Anja AUX her-DAT sister-DAT showed Mary-ACC  
 'Anja showed Mary to her sister'

# Evidence for A-movement cont'd

- Now with an object-pronoun:

(19) \*Anja je njega<sub>i</sub> predstavila brat-ov-<sub>o</sub>j<sub>i</sub> učiteljic-i.  
 Anja AUX him.ACC introduced brother-POSS-DAT teacher-DAT  
 'Anja introduced him to her brother's teacher'

- There should in principle be nothing wrong with the structure of (19) prior to the pronoun movement; the accusative pronoun (anaphor) should be c-commanded by dative the R-expression, as in the well-formed (18a)
- The fact that (19) is bad suggests that **the pronoun has A-moved** to a place from which it c-commands the R-expression, resulting in a Condition C violation

# Wrapping up

- The distribution of Serbo-Croatian (SC) **full personal pronouns**:
  - (i) object-pronouns move to a preverbal position;
  - (ii) the same modifiers that follow pronouns precede all other nominals;
  - (iii) modified pronouns do not allow LBE/PP adjunct extraction;
  - (iv) personal pronouns do not have the same modification possibilities as other nominal phrases
- Full personal pronouns in SC are DPs; unlike non-DPs (other nominal phrases, PPs, and clauses) they need to move to spec Agr to check D-related features
- Even in SC, **the** model NP language, DPs co-exist with smaller nominal phrases

# Wrapping up

- Progovac 1998: Poverty of the stimulus argument
- Valid if *even*-placement data were the only evidence the child had for the existence of DP in SC
- However, the child also has evidence from subextraction, modification and, perhaps most obviously, from the clausal distribution of pronouns
- The existence of DP in SC is does not, therefore, invalidate the NP-hypothesis



Thank you!

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## Appendix

- The contrast in (18) cannot be explained by appealing to the linear order of the elements; the relative order of the pronoun and the R-expression is the same in (20) as in the ungrammatical (18b)
- However, unlike the possessive adjective, the genitive modifier in (20) does not c-command the R-expression (Despić 2013), which is why no binding violation occurs

(20) Anja je pokazala mam-i njen-e<sub>i</sub> drugaric-e  
 Anja AUX showed mother-DAT her-GEN friend-GEN

Marij-u<sub>i</sub>.

Mary-ACC

‘Anja showed Mary to her (Mary’s) friend’s mother’