Chapter 17

Morphosemantic mismatches with pronouns as a consequence of their internal structure

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In addition to differences in their form and position in a sentence, strong pronouns and clitics in Bosnian/Croatian/Montenegrin/Serbian show systematic form-meaning mismatches. Strong pronouns license only animate referents and strict identity readings, whereas clitics show no such restrictions. This paper focuses on two exceptional contexts in which inanimate interpretation and sloppy identity readings are permitted on strong pronouns: focus contexts (acknowledged in previous literature) and prepositional phrases (novel contribution). The seemingly unrelated properties of pronominal elements can be accounted for under a unified approach to (pro)nominal syntactic structure. I will argue for a hierarchy of nominal projections: base $\succ$ ϕ-features $\succ$ case, whereby ϕ-features further split into a hierarchy (person $\succ$ number $\succ$ gender). Under the additional assumption that the pronominal base (*n*P) is a phase, and that it encodes referentiality and individuation features, its absence from the structure (due to deletion) will account for the spell-out of clitics and sloppy identity readings, while the blocking or deletion will allow for the same with strong pronouns in PPs and focus contexts.

1 Introduction

The goal of this paper is to develop a formal description of the morphological distinctions, distribution and form-meaning mismatches of pronominal elements in Bosnian/Croatian/Montenegrin/Serbian (BCMS), based on a unified model of the form, locus and function of their ϕ- and case features. BCMS personal pronouns distinguish between the so-called STRONG PRONOUNS (pronouns in their

Zorica Puškar-Gallien. 2025. Morphosemantic mismatches with pronouns as a consequence of their internal structure. In Berit Gehrke, Denisa Lenertová, Roland Meyer, Daria Seres, Luka Szucsich & Joanna Zaleska (eds.), *Advances in formal Slavic linguistics 2022*, 489–530. Berlin: Language Science Press. DOI: 10.5281/zenodo.15394197

full form) and clitics. The main claim that this paper will advance is that some seemingly unrelated properties of pronominal elements, which will be inspected throughout the paper, can be accounted for as a consequence of a unified approach to (pro)nominal syntactic structure, which relies on the key notion of HIERARCHY.

Pronominal elements in BCMS differ across two dimensions: local person (1^{st} and 2^{nd} person) vs. 3^{rd} person pronouns on the one hand, and strong pronouns vs. clitics on the other. Looking at their morphological structure, clitics are morphologically reduced forms of strong pronouns. For instance, the accusative forms of third person singular pronouns are *nje-ga* '3.SG.M.ACC', *nje* '3.SG.F.ACC', *nje-ga* '3.SG.N.ACC', while the corresponding clitics are realised by a portmanteau morpheme expressing gender, number and case, omitting the base *nj(e)-*, i.e *ga*, *je*, *ga*. On a different dimension, local person pronouns seem to spell out all their phi-features in the form of a portmanteau and their case separately, while third person pronouns spell out the base separately from gender, number and case, resembling lexical nouns and adjectives.

Strong pronouns have been argued to license only animate referents and strict identity readings whereas clitics show no such restrictions. While the lack of animacy in focus contexts was acknowledged in previous literature, I will present novel data from prepositional phrases which further blur this seemingly sharp divide by demonstrating that strong pronouns in the complement of a P position may in fact be inanimate and license sloppy identity readings.

This disparate set of distributional properties of pronominal elements in BCMS raises the question whether there is a way to unite them under a single analysis. The first step towards such an analysis requires us to look at the properties outlined above in further detail, which will be the task of Section 2 below. The core of the proposal will be based on the claim that the internal structure of a pronoun involves several hierarchies: (i) Within the pronominal extended projection, consisting of a nominal base, followed by ϕ-feature-encoding projections, followed in turn by case ([Case [Φ [NP]]]); (ii) within ϕ-features (Harley & Ritter 2002), such that person precedes number, which itself precedes gender ([gender [number [person]]]); and (iii) within case features (Caha 2009), which distinguishes between the following types of case – unmarked (NOM) $\succ$ dependent (ACC, GEN) $\succ$ oblique (DAT) $\succ$ prepositional (INS, LOC). I will further propose that these hierarchies are structurally encoded in the syntax (Béjar & Řezáč 2009, van Koppen 2012). Distribution of nominal features across them and the locality domains they define will be shown to have consequences on the morphology of pronouns (Moskal 2015b), interpretation and ability to move. In particular, local-person pronouns will differ from third-person pronouns in whether they encode

grammatical gender (Puškar-Gallien 2019); while the former cannot do it, for the latter it is one of their defining properties. Clitics and strong pronouns share the same structure, but clitics crucially lack the NP base. As I will argue, due to the location of features [animate] and [human] on the NP, and their deterministic role in establishing individuation, as well as N's role in establishing reference, the absence of N (modelled as deletion after van Urk 2018) will allow for certain semantic flexibility which will lead to the possibility of sloppy readings of clitics.

The paper is structured as follows. Section 2 introduces the pronominal paradigms and morphosemantic mismatches. A short overview of previous literature and certain issues raised from it will be presented in Section 3. The proposal on the internal structure of pronominal elements will occupy Section 4. Subsequently, Section 5 will inspect the consequences of the proposal for syntax and interpretation in more detail. Section 6 summarises and concludes.

2 Properties of pronominal elements in BCMS

2.1 Morphological form

An overview of the BCMS personal pronouns and clitics is presented in Table 1; clitics are outlined in boldface. First and second person pronouns share the same set of case endings, and realise their base (comprising of π (person) and # (number)) separately from their case features. I will consider the morphemes *-en-* and *-eb-* in the singular to be the so-called "support morphemes" (Cardinaletti & Starke 1999), which distinguish the strong pronoun forms from their clitic counterparts. The clitic forms of those pronouns are the simple *me* and *te*, without this extension. The base of first person pronouns undergoes suppletion in all non-nominative cases (cf. *ja* vs. *m-* / *na-*), as well as in the plural, while second person pronouns undergo suppletion in the plural (*ti* vs. *vi*). The third person pronouns' base undergoes suppletion in non-nominative environments, resulting in the *nj(e)-* allomorph. This morpheme is followed by a portmanteau morpheme that realises gender, number and case features, which shares its paradigm with adjectival inflection.

As for clitics, they are available in genitive, accusative and dative. Local-person clitics spell out the person, number and case features without the support morpheme, whereas third-person clitics amount to the spellout of the gender, number and case suffix, without the pronominal base *on-*/*nj(e)-*.

Table 1: Strong pronouns vs. clitics in BCMS

	1SG	2SG	1PL	2PL	3SGM/N	3SGF	3PL
NOM	*ja*	*ti*	*mi*	*vi*	*on-∅/-o*	*on-a*	*on-i/-e/-a*
GEN	*m-en-e*	*t-eb-e*	*na-s*	*va-s*	*nje-ga*	*nj-e*	*nj-ih*
DAT	*m-en-i*	*t-eb-i*	*na-ma*	*va-ma*	*nje-mu*	*nj-oj*	*nj-ima*
ACC	*m-en-e*	*t-eb-e*	*na-s*	*va-s*	*nje-ga*	*nj-u*	*nj-ih*
INS	*m-n-om*	*t-ob-om*	*na-ma*	*va-ma*	*nj-im*	*nj-om*	*nj-ima*
LOC	*m-en-i*	*t-eb-i*	*na-ma*	*va-ma*	*nje-mu*	*nj-oj*	*nj-ima*

2.2 Restrictions on reference

2.2.1 Animacy

As noted in previous literature (e.g. Despić 2011), a clitic can be interpreted as referring to either an animate (or rather human), or an inanimate referent, in contrast to a strong pronoun, which can only be interpreted as denoting a human entity.

(1) *Clitics vs. pronouns, animacy/humanness (Despić 2011: 240)*

a. Čuo sam je.
heard.M.SG AUX.1.SG CL.3.F.SG.ACC
'I heard her/it.' [+HUM] [-HUM]

b. Čuo sam nju.
heard.M.SG AUX.1.SG 3.F.SG.ACC
'I heard her.' [+HUM] *?[-HUM]

Exceptions to this generalization have been shown to appear in prepositional phrases and focus contexts. Specifically, in a PP, it is not possible to realise a clitic, instead a strong pronoun is necessary (2) (as also discussed by Abels 2012, Milićev & Bešlin 2019).[1]

[1]See Stegovec (2019) for a tripartite distinction between Slovenian strong, clitic and P-pronouns, present in earlier stages of BCMS.

(2) *Clitics vs. pronouns in a PP*
Slavica kupuje poklon za
Slavica buys present for
njega/nju/*ga/*ju.
3.M.SG.ACC/3.F.SG.ACC/CL.3.M.SG.ACC/CL.3.F.SG.ACC
'Slavica is buying a present for him/her.'

What has, to my knowledge, hitherto escaped closer scrutiny is that such a strong pronoun in a complement of P position can in fact refer to an inanimate entity. The following sentences illustrate this for genitive (3a), dative (3b), and accusative case (3c).

(3) *Strong pronouns as complements of P*

a. Dok vozi, Ljubica uglavnom koristi svoj telefon za navigaciju,
while drives Ljubica mostly uses her phone.M.SG for navigating
a Tamara se dobro snalazi i [PP bez njega].
but Tamara REFL good manages and without 3.M.SG.GEN
'While driving, Ljubica mostly uses her phone for navigating and Tamara manages well without it.' (GEN, INANIM)

b. Jelena mnogo voli svoj novi posao, a Jovana oseća izrazitu
Jelena a.lot loves self's new job.M.SG but Jovana feels distinct
odbojnost [PP prema njemu].
revulsion towards 3.M.SG.DAT
'Jelena likes her new job a lot and Jovana finds it repulsive.'
(DAT, INANIM)

c. Mladen je prošao kroz svoja pitanja za kontrolni, a i
Mladen is went through self's questions.N.PL for test but and
Saša je takođe prošao [PP kroz njih].
Sasha is also went through 3.N.PL.ACC
'Mladen went through his questions for the test and Sasha went through them too.' (ACC, INANIM)

Additionally, instrumental and locative strong pronouns (those without clitic counterparts), show the same behaviour. This has also been noted for Slovenian by Stegovec (2019), and can be illustrated by the examples in (4). By analogy with (3), I will use this to argue that instrumental and locative are in fact PPs in BCMS.

(4) *Strong pronouns in instrumental and locative*

a. Slavica uglavnom putuje bez svog velikog ruksaka, a
Slavica mostly travels without self's big backpack.M.SG but
Jovan obavezno putuje [PP s njim].
Jovan necessarily travels with 3.F.SG.INS
'Slavica mostly travels without her big backpack, but Jovan necessarily travels with it.' (INS, INANIM)

b. Lena se rado igra u svojoj sobi, a Matija samo uči
Lena REFL gladly play in self's room.F.SG but Matija only studies
[PP u njoj].
in 3.F.SG.LOC
'Lena likes to play in her room and Matija only studies in it.'
(LOC, INANIM)

Finally, if a strong pronoun is marked as discourse prominent by focus or topicalisation, it may also be inanimate. The following example illustrates this for a focused pronoun. Compare (5) to (1) above.

(5) *Focused inanimate pronoun (Despić 2011: 246)*
Čuo sam čak i nju.
heard.M.SG AUX.1.SG even and 3.F.SG.ACC
'I heard even it (lit. her).' [+HUM] [-HUM]

It should also be noted that strong pronouns referring to inanimate entities can appear in argument positions even without focus particles, but in this case they normally introduce a contrastive topic, cf. (6). The generalisation however remains that information structure properties facilitate inanimate interpretations of strong pronouns.

(6) *Topical inanimate pronoun*
Ovo je moj novi bicikl. Njega su mi poklonili
this is my new bicycle 3.M.SG.ACC AUX.3.PL CL.1.SG.DAT given
roditelji za rođendan.
parents for birthday
'This is my new bicycle. It was given to me by my parents for my birthday.'

2.2.2 Sloppy identity readings

Another property that distinguishes strong pronouns from clitics in BCMS is their ability to function as bound variables. Specifically, while strong pronouns may only strictly refer to their antecedent, clitics can license sloppy identity readings (in addition to strict ones).[2] According to Franks (2013), factors that affect the availability of sloppy identity readings include animacy, modification of the antecedent and regional variant, however Runić (2014) argues that all that is necessary is the appropriate context, e.g. (7) (see also Ruda 2021a,b for Polish). Note that examples (7a)–(7b) may not seem to be entirely parallel, due to the second position requirement on the clitic placement, however see Section 5.1 for further detail.[3]

(7) *Clitics vs. pronouns regarding sloppy readings*

a. Nikola je vidio zanimljivog klovna, a vidio ga
Nikola AUX.3.SG saw interesting clown and saw CL.3.SG.M.ACC
je i Danilo.
AUX.3.SG and Danilo
'Nikola saw an interesting clown and Danilo saw him/one too.'
(✓ Nikola saw an interesting clown and Danilo saw him (=the same clown that Nikola saw))
(✓ Nikola saw an interesting clown and Danilo saw one (=a different clown from Nikola's.)

b. Nikola je vidio zanimljivog klovna, a njega je
Nikola AUX.3.SG saw interesting clown and 3.SG.M.ACC AUX.3.SG
vidio i Danilo.
saw and Danilo
'Nikola saw an interesting clown, and Danilo saw him/*one too.'
(✓ Nikola saw an interesting clown and Danilo saw him (=the same clown that Nikola saw).)
(✗ Nikola saw an interesting clown and Danilo saw one (=a different clown from Nikola's).) (Runić 2014: 123-124)

[2]The discussion here is restricted to third-person clitics.

[3]The context for sloppy reading in (7) as suggested by Runić (2014: 123) is the following: 'Nikola and Danilo are cousins who live in two different cities in Serbia. Specifically, Nikola lives in Belgrade, while Danilo lives in Niš. They are both five years old and their parents take them to circus performances whenever a circus is in town. A circus is in both Belgrade and Niš at the same time. Both Nikola and Danilo saw an interesting clown in the circus, albeit not the same one'.

A novel observation I put forward is that BCMS strong pronouns in complement of P position may also allow for sloppy readings, as the examples repeated in (8) show. Example (8a) illustrates this for genitive case, (8b) for dative, and (8c) for accusative.

(8) *Sloppy readings of strong pronouns as complements of P*

a. Dok vozi, Ljubica uglavnom koristi svoj telefon za navigaciju,
while drives Ljubica mostly uses her phone.M.SG for navigating
a Tamara se dobro snalazi i [PP bez njega].
but Tamara REFL good manages and without 3.SG.M.GEN
'While driving, Ljubica mostly uses her phone for navigating and Tamara manages well without Ljubica's phone/Tamara's phone.'

b. Jelena mnogo voli svoj novi posao, a Jovana oseća izrazitu
Jelena a.lot loves self's new job.M.SG but Jovana feels distinct
odbojnost [PP prema njemu].
revulsion towards 3.M.SG.DAT
'Jelena likes her new job a lot and Jovana finds it (Jelena's job/ Jovana's job) repulsive.'

c. Mladen je prošao kroz svoja pitanja za kontrolni, a i
Mladen is went through self's questions.N.PL for test but and
Saša je takođe prošao [PP kroz njih].
Sasha is also went through 3.N.PL.ACC
'Mladen went through his questions for the test and Sasha went through them (Sasha's/Mladen's questions) too.'

The same holds for instrumental and locative, as repeated in (9).

(9) *Sloppy readings of strong pronouns in instrumental and locative*

a. Slavica uglavnom putuje bez svog velikog ruksaka, a
Slavica mostly travels without self's big backpack.M.SG but
Jovan obavezno putuje [PP s njim].
Jovan necessarily travels with 3.F.SG.INS
'Slavica mostly travels without her big backpack, but Jovan necessarily travels with it (Slavica's/Jovan's backpack).'

b. Lena se rado igra u svojoj sobi, a Matija samo uči
Lena REFL gladly play in self's room.F.SG but Matija only studies

[$_{PP}$ u njoj].
in 3.F.SG.LOC
'Lena likes to play in her room and Matija only studies in it (Lena's/ Matija's room).'

The sentences in (8)–(9) were included in an informal survey, completed by 35 native speakers, recruited through the online community (a Facebook group) *Kako biste VI rekli?* 'How would YOU say?'. Based on a short context, the participants were asked to rate the sentence (thus probing the acceptance of animacy restrictions) and choose the appropriate interpretation in a multiple-choice task (choice between the strict and the sloppy interpretation, or both). For instance, (8a) received an overall rating of 4/5 and 25/35 speakers chose the sloppy identiy reading as the preferred interpretation. This confirms that the context plays a big role, but so does the sentence structure. A more formal and balanced further study is planned in order to confirm and elaborate on these results, considering additional factors such as the position of the PP. Nevertheless, the fact that BCMS speakers accept sloppy identity readings of strong pronouns in this context indicates that the divide between strong pronouns and clitics may not be as sharp as is normally drawn, which any theory that models them should be able to account for.

2.2.3 Information structure

An additional distinction between strong pronouns and clitics in BCMS associates strong pronouns with focus, and clitics with topical interpretation. In BCMS, only strong pronouns may express new-information or contrastive focus (or require an antecedent that carries focus, see Despić 2011, Jovović 2024), as illustrated in (10), where the sentence-final position is normally the one where contrastive focus is introduced.

(10) *Strong pronouns and focus*
Who did you see?
a. # Video sam ga.
seen.M.SG AUX.1.SG CL.3.M.SG
'I saw him.'
b. Video sam njega.
seen.M.SG AUX.1.SG 3.M.SG
'I saw him.' (Despić 2011: 245)

Clitics, on the other hand, are topical elements, or require antecedents that express discourse-given information (Jovović 2024). If contrastive focus is present, a strong pronoun must be used as in (11b). Note that (11b) remains ungrammatical even if the clitic is moved to its (expected) second position in the clause (11c).

(11) *Clitics and topicality*

a. Svaki predsednik$_i$ misli da $\boxed{\text{ga}_i/\text{??njega}_i}$ svi vole.
every president thinks that CL.3.M.SG.ACC/3.M.SG.ACC everyone love
'Every president$_i$ thinks that everybody loves him$_i$.'

b. Svaki predsednik$_i$ misli da samo {njega$_i$ / *ga$_i$} svi vole.
every president thinks that only 3.M.SG.ACC CL.3.M.SG.ACC everyone love
'Every president$_i$ thinks that everyone loves only him$_i$.'

c. *Svaki predsednik$_i$ misli da ga samo svi vole.
every president thinks that CL.3.M.SG.ACC only everyone love
Intended: 'Every president$_i$ thinks that everyone loves only him$_i$.'
(Despić 2011: 243)

Focus in BCMS requires prosodic prominence, which clitics always lack, which in turn makes them illicit in a focus position.[4] If a focused pronoun allows for inanimate reference as in (12)–(13), Despić (2011: 244) argues that such a pronoun is merely a clitic that has to be spelled out as a strong pronoun due to the phonological requirements on focused constituents. Such a 'camouflaged clitic' (Despić 2011: 244) should also be able to act as a bound variable, as illustrated by (11b) above.

(12) *Focused inanimate pronoun*

Čuo sam čak i $\boxed{\text{nju}}$.
heard.M.SG AUX.1.SG even and 3.F.SG.ACC
'I heard even it/her.' [+HUM] [-HUM] (Despić 2011: 246)

[4] See Browne (1974), Zec & Inkelas (1991), Franks & Progovac (1994), Godjevac (2000) on clitics lacking prosodic prominence, Godjevac (2000) on focus requiring prosodic prominence, and Despić (2011: 244) on further interactions between the two.

(13) *Focused inanimate pronoun*
Malo ko obilazi muzeje oko gradske crkve$_i$. Nju$_i$ *(samu),
few who visits museums around city church 3.F.SG.ACC alone
opet dnevno poseti oko 50 turista.
again daily visits around 50 tourists
'A few people visits museums around the city church. (As for the church itself), an average of 50 tourists visits it a day.' (Despić 2011: 247)

The animacy properties, the ability to be bound and the sloppy readings outlined in Section 2.2.2 indicate a lack of inherent referentiality of strong pronouns in these contexts. This may be the reason why Cardinaletti & Starke (1999) treat them as weak pronouns, or why Despić (2011: 244) treats them as clitics in disguise.

3 Theoretical puzzles and their treatment in the literature

The data presented above pose several basic questions that a unified theory of pronominal elements should be able to answer. For a start, we would like to know how the morphosyntactic differences between strong pronouns and clitics can be accounted for, while specifying how referential properties of strong pronouns vs. clitics should be modelled. In relation to their referential properties, the question arises how animacy is represented, as well as why clitics allow for sloppy interpretations, and how the exceptions in PPs can be accounted for. This should directly extend to the behaviour of pronouns in focus contexts.

All of the issues raised here have been discussed in relation to the categorial status of the pronoun by being tied to the debate on whether nominal elements in BCMS project a DP. Specifically, Despić (2011) and Runić (2014), among others, argue that pronouns in BCMS are NPs. Some of their arguments come from pronominal modification, argument ellipsis, the ability of clitics to license sloppy readings, etc. Yet, Bešlin (in press) advocates for a parametrised view of nominal categories in BCMS, under which lexical nouns are NPs, but pronouns are DPs in this language. Part of her argument is based on pronominal modification and the fact that Left-Branch Extraction of a nominal modifier is possible with a lexical NP but not with a pronoun. As we will see shortly below, using modification of a pronoun as a diagnostic has shown to lead to inconclusive results, which makes the parametrised view require closer scrutiny. Finally, some authors reject the NP/DP distinction as a culprit for the difference in the behaviour of nominal and pronominal elements altogether in BCMS, arguing that factors other

than the presence of articles in a language may be employed to explain some of Bošković's (2008) typological generalizations. For instance, Jovović (2024) does this for binding and Condition B violations present in BCMS (and absent in languages without articles), showing that the empirical picture is more complex and dependent on factors such as information structure, and not necessarily nominal size.

One way to resolve this puzzle is to apply tests in order to probe the structure of the pronominal phrase. Déchaine & Wiltschko (2002) argue that this structure can be threefold, namely pronouns may be mere NPs (Pro-NP), or DPs (Pro-DP), or of an intermediate size, which they term Pro-PhiP. Unfortunately, the tests provided in their work prove to be inconclusive for BCMS. For instance, for a pronoun to count as a DP, is should allow modification of the type *we linguists* or *you poor thing*, where the pronoun would be the overt realisation of the D head. BCMS pronouns do allow modification (see Progovac 1998, Bošković 2008, Despić 2011, Runić 2014, Arsenijević 2017, Bešlin in press for detailed descriptions, as well as Höhn 2016 on such constructions in general), as illustrated in (14).

(14) *Modified personal pronouns*

a. Dobri ti me retko {zove / zoveš}.
good.M.SG 2.SG.NOM 1.SG.ACC rarely call.3.SG call.2.SG
'The good you rarely call(s) me.' (Arsenijević 2014)

b. Ja volim onog tebe kojeg poznajem.
1.SG.NOM love.1.SG that.M.SG 2.SG.ACC who know.1.SG
'I love that you that I know.' (Pereltsvaig 2007: 28)

Nevertheless, as observed by Arsenijević (2017), the mere fact that pronouns can be modified in BCMS and in English is insufficient to diagnose the presence or absence of a DP layer. Arsenijević (2017: 13) argues (contra Bošković 2008, Runić 2014) that even English pronouns can be modified by adjectives (e.g. *Last night's him was so unlike the him that Sepi had first met*). And since they can be preceded by an article, this would indicate that they do not move to D, contrary to Déchaine & Wiltschko (2002). Moreover, Arsenijević (2014) recognises that there are semantic restrictions on the adjectives that can modify pronouns, such that only non-restrictive adjectives can combine with pronouns. Adjectives that are used restrictively can combine with pronouns only if the pronouns themselves semantically shift in interpretation, acquiring the interpretation of nouns (i.e. from type e to $\langle e, t \rangle$, as evident in the different agreement possibilities that such a pronoun can license, demonstrated in (14a)).

Furthermore, a Pro-DP behaves as an R-expression, while a Pro-PhiP behaves as a bound variable, which would qualify strong pronouns as DPs and clitics as PhiPs. However we have seen above that strong pronouns may license sloppy readings in PPs and act as bound variables in focus contexts, which would simultaneously make them PhiPs. Finally, according to Déchaine & Wiltschko (2002), a Pro-DP cannot be used as a predicate, but only as an argument. Clitics in BCMS can only be used as arguments (15), which would qualify them as DPs, while strong pronouns can appear in both contexts (15)–(16), which would make them Pro-PhiPs. However note that the very claim that DPs cannot function as predicates, put forward by Longobardi (1994), and followed by Déchaine & Wiltschko (2002) has been disputed in the literature (see for instance Pereltsvaig 2007: 21f. and references therein for Slavic).[5]

(15) Video sam {tebe / te}.
see.PRT.M.SG AUX.1.SG 2.SG.ACC CL.2.SG.ACC
'I saw you.'

(16) Postala sam ti.
become.PRT.F.SG AUX.1.SG 2.SG.NOM
'I became you.'

There thus seems to be a lack of clear evidence on what category the pronominal elements could be, but more evidence favours their being PhiPs, than DPs. I will thus take an intermediate position, which is on the one hand, that the DP is not crucial to our understanding of the properties of personal pronouns, and on the other, that ϕ-features are one of their defining properties. As such, the DP will not play a crucial role in our analysis and will be left out of the pronominal structures proposed below (which will also be in line with recent proposals by Stegovec 2019, Ruda 2021a, but also the bulk of recent literature on the morphological realisation of pronouns advocated for by Moskal 2015b; Smith et al. 2019; McFadden 2018). Their PhiP status will prove to be convenient in accounting for the similarities and differences between strong pronouns and clitics. Eliminating the DP will require other ways to deal with their referentiality, but see Trenkić (2004), Stanković (2014a,b) on reference not requiring D in BCMS. The existence

[5]Cardinaletti and Starke (1999) argue for a tripartite distinction between strong, weak, and clitic pronouns; their tests are also insufficient – we could treat argument pronouns as strong and PP pronouns such as those in example (3) as weak (since they allow for inanimate referents, unlike strong pronouns in argument position), but they should also disallow coordination (see Bešlin in press and Despić 2011 for discussion and counterexamples).

of the DP in the structure and its location in relation to other phases will thus not be essential for the analysis.

Having established that ϕ-features are a crucial part of pronouns, we may further inquire about their exact structural encoding and relation to case and animacy features. Several works in the literature have tackled this issue, including Progovac (1998), Franks (2013), Despić (2017), Stegovec (2019), Caha (2021), Ruda (2021a). Assuming that they are distributed along the nominal spine, the consensus is mostly on a structure that involves an NP, followed by ϕ-features and case features on top of them, which I will follow, with some adjustments. As for animacy and humanness, they are tied to referential/individuation specification and also connected to natural and grammatical gender and number distinction, as well as person, which makes them generally problematic for the Y-model of syntax. They have been tied to person by Sichel & Toosarvandani (2024a,b), or to gender and classifiers by Harley & Ritter (2002), Puškar (2018), Puškar-Gallien (2019), Arsenijević (2021), or referential index (Stegovec 2019). Any successful analysis of the data presented above should be able to account for the optionality of animacy on clitics.

In what follows, I aim to provide an account of the properties of pronouns (animacy restrictions and sloppy readings) outlined above that will be based on a unified syntactic structure with well-defined locality domains.

4 Proposal: The internal structure of pronouns

In this section, I will outline a proposal for the internal structure of pronominal categories based on a combination of the feature geometry approach (Harley & Ritter 2002), the size of nominal phrase (Déchaine & Wiltschko 2002, Caha 2021), separate encoding of ϕ-features and predefined locality domains (e.g. Moskal 2015b, van Urk 2018).[6]

The general idea is that the (pro)nominal phrase consists of three general zones, a lexical one, followed by ϕ-feature-hosting projections, topped by case-bearing projections ([KP [ϕP [NP]]]). The ϕP will be further dissected into a person phrase (PersP), number phrase (NumP) and a gender phrase (ClassP). Finally, the case phrases will distinguish between unmarked, dependent, oblique, and prepositional case.

[6]Puškar-Gallien (forthcoming) offers a proposal on full syntactic decomposition of pronouns and their subfeatures, as well as their morphological realisation in the Distributed Morphology framework, which is why these will be largely put aside in the discussion below.

The base of the noun consists of a nominal root and a nominalizing head *n* (see Kramer 2015 and references therein). Following the claims of Moskal (2015a,b) and Smith et al. (2019) that the pronominal base crucially differs from the one of nouns in lacking a lexical root, I will treat the pronominal *n*P as consisting solely of the categorizing head *n* (van Urk 2018, building on Postal 1969, Elbourne 2005; but also Déchaine & Wiltschko 2002, van Koppen 2012).

4.1 Phi-features and their distribution

In analysing the syntactic representation of ϕ-features, I will rely on the proposal of Harley & Ritter (2002), who argue that ϕ-features have complex internal structure in the form of hierarchically organised sub-features. Their proposal is reproduced in Figure 1. An important aspect of the hierarchy is feature entailment. Having a deeper-embedded feature implies having the feature dominating it. For instance, if a pronoun has the feature [Addressee] from Figure 1, it will also contain the feature [Participant]. Such a structured geometric representation of morphological features, modelled after that of the phonological ones, is claimed to help constrain pronoun and agreement systems and present interdependence of features in a systematic way.

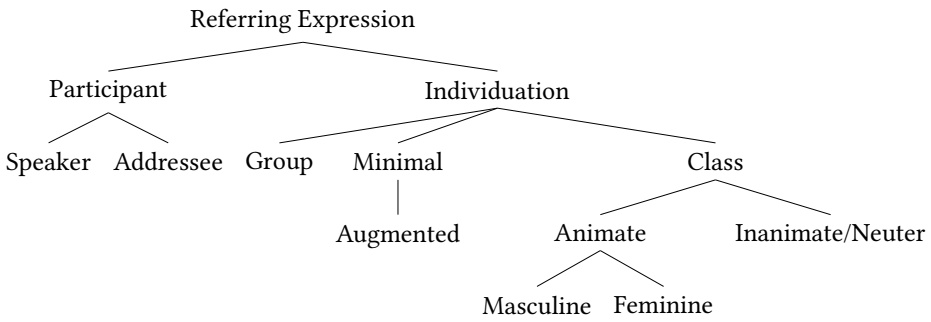


Figure 1: Structural hierarchy of ϕ-features (Harley & Ritter 2002: 486)

Accounts that distribute these features across the nominal spine have mostly focused on two types of features, person and number, or number and gender (see Béjar & Řezáč 2009, van Koppen 2012, Puškar 2018, Puškar-Gallien 2019, Caha 2021). I intend to offer a unified proposal for structural encoding of the hierarchy in Figure 1 within the nominal phrase that includes all the feature types present in it.

As a starting assumption, I take it that each feature type is hosted by a separate phrase. Taking the incremental bottom-up approach to syntactic structure building very literally, I interpret the root node of the pronoun, one that the entire hierarchy is built on (the "Referring Expression" in Figure 1), as the *n*P base. This models the idea that *n*P is responsible for the referentiality of the pronoun.[7]

Disagreement in the literature is present not only in the encoding of referentiality, but also in the encoding of individuation (another complex node in the hierarchy in Figure 1). Referentiality and individuation are connected such that reference taking and quantification are dependent on individuation (see e.g. Sichel & Toosarvandani 2024a), which differentiates nouns from other lexical categories (Baker 2003: 94-189). Individuation as a property has received different treatments in the literature. While Harley & Ritter (2002) separate it from person and make it a precondition for having number and gender features (cf. Figure 1), Sichel & Toosarvandani (2024a,b) employ a separate syntactic projection to encode this property, which to them mediates between person and animacy features and accounts for their interdependence. The locus of animacy is thus also a matter of debate, or rather crosslinguistic variability. It has been related to person (see also, e.g., Lochbihler et al. 2021), but also to gender by Foley & Toosarvandani (2022), or Puškar (2018), Puškar-Gallien (2019) for BCMS.

I follow Puškar (2018), Puškar-Gallien (2019) in assuming that individuation is related to animacy, both of which are a part of '.' Puškar (2018) integrates animacy into the representation of natural gender, which is argued to be located on '.' Encoding animacy as part of natural gender on *n* (as opposed to morphological gender which is higher in the structure, see below) correctly derives all available, and rules out unavailable patterns of agreement in BCMS such as hybrid agreement and Corbett's (1979) Agreement Hierarchy. Puškar-Gallien (2019) extends this to agreement with honorific pronouns by arguing that animacy is also an integral part of natural number, which is encoded together with natural gender on '.' They are located under a common node, labeled "IND", standing for "individuation". I will thus assume that individuation (in addition to referential index) is a property encoded on the nominal base. Recall that Baker (2003: 94-189) claims that individuation and reference taking differentiate nouns from other lexical categories. Distributed Morphology models this difference by building different

[7]Precursors for this idea include Caha (2021), who models RefP as an additional syntactic projection above the *n*P, albeit without providing much detail on its purpose or interpretation. Sichel & Toosarvandani (2024b) use a more abstract σP for individuation purposes, while Ruda (2021a,b) utilizes a PersP. See also Stegovec (2019), who employs a (morphologically) empty node *Index* to introduce the referential index on the pronoun. This node is assumed to be higher in the structure.

categories on different categorising heads (and sharing their extended projections). Making *n* responsible for individuation and reference thus models this connection. More concretely, I will assume that individuation is dependent on properties such as [animate] and [human], which can appear as features of the pronominal base.[8]

Disassociating individuation from number and gender requires a reorganisation of the hierarchy in Figure 1 such that it can ultimately be encoded in terms of syntactic phrase structure. That person features reside lower than number features has been argued by Noyer (1992), Trommer (2002), Harbour (2007, 2008a, 2016), Arregi & Nevins (2012). Their argument comes from the ordering of person and number affixes, where it was noticed that person affixes strongly tend to be linearised closer to the stem of the word, and number affixes further from them. Under the Mirror Theory (Baker 1985, Brody 2000, Brody & Szabolcsi 2003), this points to a lower base position of person with respect to number. Additionally, under Harbour's (2016) theory of person and number encoding, person being introduced higher than number makes wrong predictions for possible and impossible pronoun inventories. Following van Urk (2018); Smith et al. (2019), I assume π to be local to the pronominal base. I take person to head its own projection, πP, above the *n*P, following recent proposals of Ruda (2021a) for Polish and Stegovec (2019) for Slovenian. Specifically, I assume that 1^{st} person comprises the features [π, Participant, Speaker], 2^{nd} person lacks the [Speaker] feature and 3^{rd} person is represented by the person [π] node alone, as illustrated in figure Figure 2 below.

Number heads a projection further up, which I will label as #P (Picallo 1991, Bernstein 1993, Borer 2005, Acquaviva 2009, Harbour 2008b). Since BCMS has a simple binary number system, it suffices to assume that it includes the generalised feature [#], which can have a [PL] feature as its dependant. Singular will be treated as the absence of number (Nevins 2011, Pesetsky 2013; see Despić 2017 for a claim that singular number is unmarked with respect to plural in Serbian). Technically, #P will be postulated only in case it specifies plural number, i.e. #P is not projected if the noun is singular (Kratzer 2007).

Grammatical gender heads its own projection CL(ass)P above #P. Here, CLASS will be used as mnemonic for gender, which admittedly has more complex structure and whose further modelling is outside of the scope of this paper. I will simply assume that CLP hosts the morphologically realised GENDER. In locating morphological gender above number I also follow Puškar (2018), Puškar-Gallien (2019), who argues that this constellation is indispensable for BCMS in order to

[8]Puškar-Gallien (forthcoming) offers a revision of this model and provides further detail on how animacy and humanness can be encoded on the *n* base.

derive the variability of agreement patterns found with different nominals. This position of number in between grammatical gender and individuation (in her case natural gender and number) has a blocking effect on agreement, which can derive agreement mismatches of nouns such as *vladika* 'bishop', which agree as masculine in the singular (natural gender), but as feminine in the plural (grammatical gender). This way of modeling gender is also a precondition to deriving all other agreement patterns in the language.[9]

To sum up the discussion thus far, Figure 2 presents the proposal for the basic pronominal functional spine in BCMS. I assume that the features themselves are the syntactic heads that project the corresponding phrases. These features can also include a small hierarchy of sub-features below them.[10]

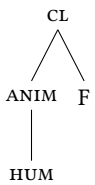
4.2 Case features and their distribution

Following Bittner & Hale (1996), Caha (2009), Neeleman & Szendrői (2007), Moskal (2015a,b), Smith et al. (2019), I assume that case is introduced by a separate projection K(P). K can have a complex structure that encodes Caha's (2009) *Case Hierarchy*:

[9] GENDER as a category can be dispersed across the nominal spine. For the distinctions in encoding grammatical and natural gender see Steriopolo & Wiltschko (2010), Pesetsky (2013), Landau (2016), Kučerová (2018), Steriopolo (2018a,b), Fassi Fehri (2018), but also Arsenijević (2021) for an alternative view, and in particular Puškar (2018), Puškar-Gallien (2019) for arguments why natural gender must be located lower in the structure.

[10] One necessary addition to this model is the representation of natural gender on '.' I assume that it additionally involves a feature [CL] and a feature [F] as its dependant. This directly links gender and the features [ANIM] and [HUM]. For instance, nouns of feminine natural gender will involve all of the available nodes in the hierarchy: [CL[ANIM[HUM]][F]], while grammatically feminine nouns will lack the animate and human specification, leaving them with [CL[F]]. Nouns of masculine grammatical gender will only involve the [CL] node, as an unmarked gender feature. Masculine natural gender will involve the [ANIM] and [HUM] features as well, accounting for the general bias in language under which the default referent of human nouns is male Finally, the absence of the [CL] node signals the absence of gender, thereby modelling neuter gender. As such, gender can also participate in agreement, as 1st and 2nd person pronouns control natural gender agreement.

(i)



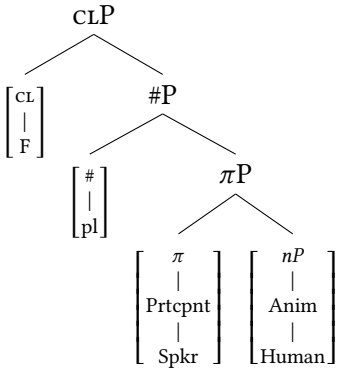


Figure 2: Basic pronominal functional spine in BCMS

NOMINATIVE ≻ ACCUSATIVE ≻ GENITIVE ≻ DATIVE ≻ INSTRUMENTAL ≻ COMITATIVE. Smith et al. (2019) simplify this somewhat by assuming a distinction between the DEPENDENT CASE (DEP; here encompassing ACC and GEN) and the OBLIQUE CASE (OBL, here DAT). To this I add the assumption that BCMS also includes two cases that are realised as prepositional phrases, namely INSTRUMENTAL and LOCative (see Milićev & Bešlin 2019 for instrumental in BCMS; the assumption on locative is straightforward for BCMS, as it is always syncretic with dative and obligatorily preceded by a preposition).

(17) $[_{PP}\ P\ [_{K_{OBL}P}\ K_{OBL}\ [_{K_{DEP}P}\ K_{DEP}\ [_{K_{UNM}P}\ K_{UNM}\ [_{CLP}\ CL\ [_{\#P}\ \#\ [_{\pi P}\ \pi\ [_{nP}\ n\ ]]]]]]]]$

To the structure above McFadden (2018) adds the proposal that NOM is the absence of case (built on Bittner & Hale 1996, McFadden & Sundaresan 2009, i.a.), which he models as the absence of the case-bearing projection(s). This eliminates K_{UNM}, leaving nominative pronouns without any case projections.[11]

[11]Modelling case features closely follows the assumptions from nanosyntax on the containment of case projections. A reviewer notices though that KP layers differ from the other layers in the NP as they are interdependent. In order to streamline the nature of the projections, it can be assumed that KP is projected by the feature [DEP], thus KP would only be present when the feature [DEP] is. Other case features, such as [OBL] may be introduced as sub-features of [DEP], such that the case hierarchy is present within the head node on this projection, just like with ϕ-features. This would model the dependence of oblique case on the dependent case, as well as the absence of case in the nominative. See Bárány (2017) for a similar approach.

4.2.1 Interim summary

To sum up, Figure 3 represents the complete structure of a BCMS nominal phrase in the most complex case. This provides a way to distribute the Harley & Ritter (2002) hierarchy across the pronominal spine (see also van Koppen 2012, Fassi Fehri 2000).

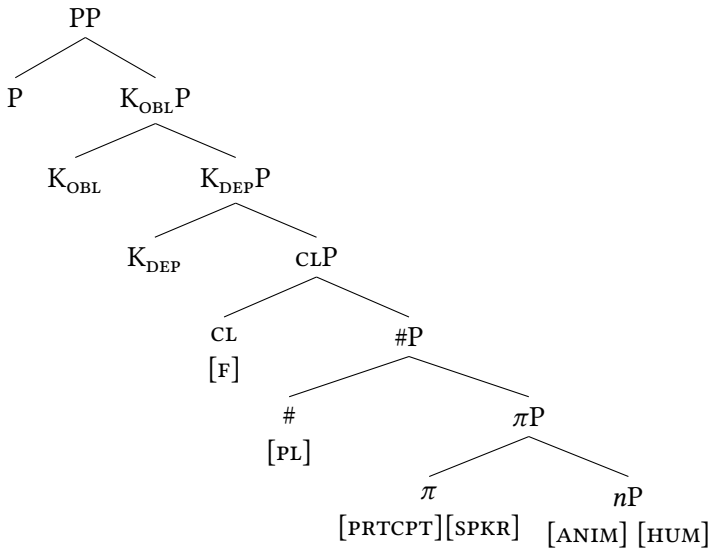


Figure 3: Proposed model of the structure of a BCMS pronoun

4.3 The representation of pronoun types

The complete structure of a pronoun given in Figure 3 offers possibilities for parametrisation, as not all pronouns will require all the available nodes. I propose that local-person pronouns lack clP in general, which models the lack of grammatical gender. Their singular forms also lack #P. The πP is projected, since they must have at the minimum the [prtcpt] feature. The structures in Figures 4–5 represent the local-person pronouns in the nominative case (hence the lack of KP). First person pronouns differ from second person ones in having the additional [spkr] feature.[12]

[12] A reviewer wonders how local-person pronouns can control gender agreement without having overt grammatical gender features. Recall from Section 4.1 and footnote 10 that I assume that natural gender is present on the *n*P of local-person pronouns, following Puškar (2018), Puškar-Gallien (2019). From there it can enter agreement relations.

This structure offers additional possibilities for parametric variation. While BCMS does not show gender distinctions on local person due to an assumed lack of CLP, Slovenian does contain this phrase and consequently distinguishes feminine (*m-e* '1-F.PL') and masculine (*m-i* '1-M.PL') versions of local person. Notice that Slovenian incidentally offers evidence for ordering person before number and gender, as the gender and number portmanteau follows the person morpheme.[13]

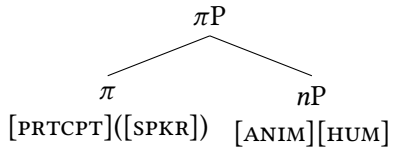


Figure 4: Singular local-person pronoun

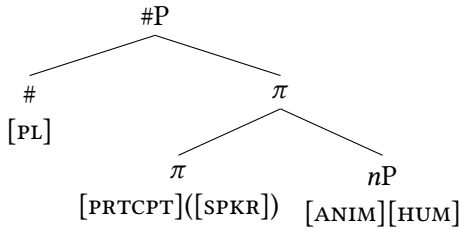


Figure 5: Plural local-person pronoun

The proposed structures for 3^{rd}-person pronouns are presented in Figures 6–7. In the singular, due to the absence of number, their *n*P will be dominated by *π*P and CLP, which bears the [F] node for grammatically feminine nouns or just the [CL] node for masculine ones. In the plural, the CLP will be projected above the #P. The combination of these two phrases will define the inflectional affixes of the pronouns. The *n*P lacks features if the pronoun denotes an inanimate entity. With an animate (or human) referent, these features will be present on the *n*P.

The system proposed above may be extended straightforwardly to other languages of the Slavic family. As for further extensions to possible and impossible pronominal systems, the proposal would make similar predictions as those

[13] Alternatively, we may assume grammatical gender to be universally present and that it gets deleted under Impoverishment in local person contexts, as suggested by Noyer (1992) for Arabic, or Despić (2017) for Serbian.

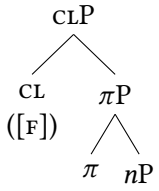


Figure 6: Singular 3rd-person pronoun

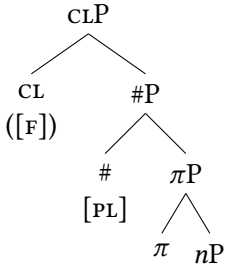


Figure 7: Plural 3rd-person pronoun

made by Harley & Ritter (2002) under the assumption that what they call "activation" of a particular node is implemented as the presence of that node in the syntax. Just like their model, my model keeps person and number features separate, and the variation in pronominal systems depends on the activation of the (sub-)hierarchies of these nodes. If the two nodes [Participant] and [#] are activated together, their combination may yield particular types of person, such as those with inclusive/exclusive distinctions. According to them, the presence of particular features in the pronominal hierarchy may be motivated by the presence of a feature in other areas of grammar too. E.g. Pirahã, Maxakalí and Kwakiutl do not show number distinctions and consequently do not make use of the Individuation node in their hierarchy. Thus in my system a language that makes person and number distinctions would project πP and #P, whose subnodes would further model distinctions such as inclusive/exclusive, paucal, etc.

As for gender, Harley & Ritter admit that the CL node in their hierarchy would need further modelling and elaboration due to wide crosslinguistic variation in the representation of gender features. They note that "1st or 2nd person features should combine freely with any of the number and gender features, since the latter are dependents of a separate organizing node" (Harley & Ritter 2002: 508).

Representation of gender across different (lexical and functional) categories, interaction of gender with other ϕ- and and case features and interaction of gender with animacy and humanness is thus a task under current research that is outside the scope of this paper.[14]

4.4 A note on the morphological realisation of strong pronouns vs. clitics

The general intuition that I would like to outline here is that the spell-out rules for local-person pronouns target the base and ϕ-features together, whereas in third-person pronouns, the base is spelled out separately from the inflectional affixes, cf. Figures 8–9. This is what in principle makes third-person pronouns similar to nouns. The spell-out rules will have to be made more precise in order to be able to account for the suppletion patterns presented in Section 2.1, however this is outside the scope of the current paper.

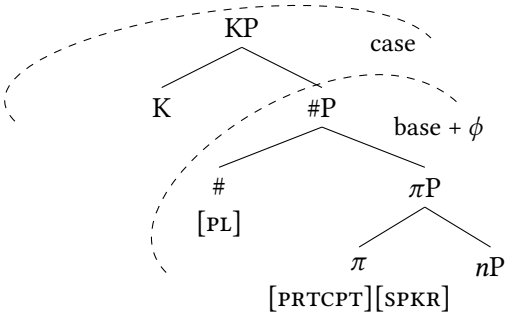


Figure 8: Local person

We will furthermore see that spelling out *n*P independently, i.e. effectively deleting it, is what enables a certain amount of flexibility to clitics that strong pronouns lack. Under the assumption that the *n*P is a locality domain and as

[14] First steps of further research involve a crosslinguistic study of pronouns that show gender distinctions on local person. So far, I have identified 54 languages with gender on local person, belonging to 18 families and 2 isolates, based on the World Atlas of Language Structures (Siewierska 2013). My system predicts that in polymorphemic pronouns, gender should follow person and number, and languages that conform to this include Andi, Arabic, Berber, Bora, Djeebbana, Gagadu, Nama, Provencal, Spanish, Lithuanian, Slovenian, Korana. Other candidates to be studied further include Aramaic, Beja, Coptic, Zari, Paez, Sha, Baniata, Dumo, Murui Huitoto and Tunica. This sample should offer further insight into feature entailment relations by identifying patterns of gender encoding and its limitations.

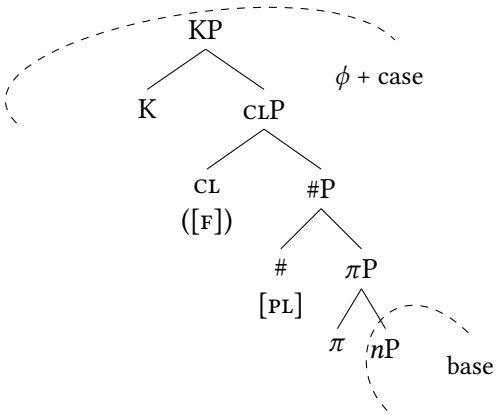


Figure 9: 3rd person

such it is transferred to the interfaces independently of the rest of the structure, the remaining structure is spelled out in the next cycle as a clitic. Figures 10–13 illustrate the part of the structure that gets realised as a clitic after *n*P deletion. I will build on this below in exploring the syntactic consequences of the given structures.

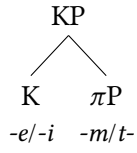


Figure 10: Local person clitic singular

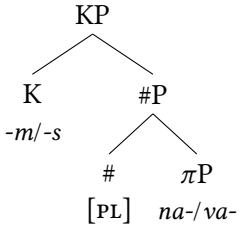


Figure 11: Local person clitic plural

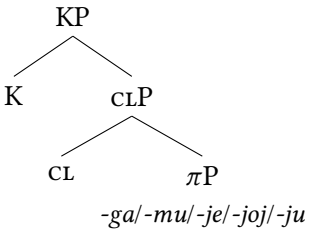


Figure 12: 3^{rd} person clitic singular

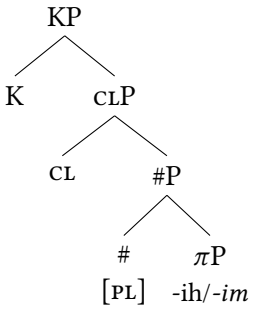


Figure 13: 3^{rd} person clitic plural

To sum up, what unifies strong pronouns and clitics is their internal structure, which can be parametrised. What differentiates strong pronouns from clitics is the presence of the *n*P, such that with clitics it is not realised.

4.5 Consequences for animacy and referentiality

The proposal above has direct consequences for the interpretational properties of pronouns presented in Section 2.2. Since clitics lack the *n*P, and with it the animate and human features, they are in principle compatible with either interpretation. Recall that clitics also behave as bound variables, which allows for sloppy readings and the ability to be bound. Due to the lack of *n*P, they also lack strict reference, and are thus more flexible.

Before continuing on to the syntactic consequences of this proposal, a comment on the interpretation of ϕ-features is in order. As interpretable features, ϕ-features have been widely assumed to trigger presuppositions (Cooper 1983, Heim 2008, Kratzer 2009, Jacobson 2012, Sudo 2012). Pronouns carry a referential

index which determines their interpretation (e.g. speaker, hearer, participant in a speech act), and ϕ-features, which are considered to introduce presuppositions to the values provided by the index (see Sauerland 2013). Even though presuppositions triggered by free and bound pronouns may differ in some aspects, they have been subject to unified analyses (see Sudo 2012, Sauerland 2013).

Since I treat animacy as a part of natural gender, I will follow Merchant (2014); Murphy et al. (2018); Sudo & Spathas (2020), Arsenijević (2021), all of whom assume that natural gender features trigger presuppositions on the gender of the referent, although they differ in their treatment of grammatical gender (no presuppositions by Merchant 2014, Murphy et al. 2018, presuppositions but no assertions by Sudo & Spathas 2020, or weak presupposition by Arsenijević 2021). Arsenijević (2021) and Arsenijević et al. (2022) argue that features like [human] can also be presupposition triggers in BCMS, mostly in conjunction with and in relation to gender. In particular, they argue that [human] contributes to intepretation of gender by triggering a moderate male presupposition (due to cultural bias). In principle, the absence of a gender presupposition (or an assertion thereof) makes a noun compatible with either male or female referents. In the same vein, we can assume that the absence of animacy and humanness information on the *n*P leads to a pronoun's compatibility with both animate and inanimate referents. This would mean that the deletion mechanism proposed below applies at LF as well. I will leave further formalisation of this for future research and explore some of the technical consequences below.

5 Consequences for syntax and interpretation

This section explores the syntactic consequences of the structures proposed above. In particular, I will argue that the availability of sloppy readings of strong pronouns is related to their inability to move out of the PP. Section 5.1 explores the general properties of movement of (pro)nominal elements, and Section 5.2–Section 5.3 develop an account on the interactions of this movement with the pronominal structure and its locality domains.

5.1 Pronoun movement

Recall that if a pronoun follows a preposition, it can only appear in its strong form, no clitics are allowed, as illustrated above in (2). Yet such strong pronouns in the complement of PP show clitic-like behaviour: They may be inanimate and allow for sloppy readings, as illustrated by examples (3)–(4) and (8)–(9) above. I

will argue that such clitic-like behaviour of pronouns in this context is due to a ban on movement out of the PP.

As a starting point, let us examine the general behaviour of (pro)nominal elements in BCMS with respect to movement. Unlike nouns, pronouns in BCMS have been argued to move outside of the VP, as illustrated in (18a) for pronouns and (18b) for nouns. As Bešlin (in press: 3) suggests, a potential context for (18a) could be something like 'When will Mary meet John next?'. A lexical NP may move, with an effect on its interpretation (the moved instance of *Jovan* in (18b) is topical, while the postverbal *in-situ* one is new information focus, as reported in Bešlin in press). Clitics in BCMS are also known to undergo movement to the second position in a sentence (18c) (see Bošković 2001, 2004, Talić 2018).

(18) *Pronoun movement*

a. Marija {njega} sreće {?*njega} svaki dan.
Marija 3.M.SG.ACC meets 3.M.SG.ACC every day.
'Marija meets him every day.'

b. Marija {Jovana} sreće {Jovana} svaki dan.
Marija Jovan meets Jovan every day.
'Marija meets Jovan every day.' (Stojanović 1997: 307; Bešlin in press)

c. Marija {ga} sreće {*ga} svaki dan.
Marija CL.3.M.SG.ACC meets CL.3.M.SG.ACC every day.
'Marija meets him every day.'

Based on the position of the pronoun relative to adverbs and negation, Bešlin (in press) proposes that the landing site of the moved pronoun is somewhere in the middle field, between *v*P and TP (19b). Although the movement of clitics is further affected by phonological considerations such as second position in a prosodic word (see Talić 2018 and references therein), assuming that clitics behave like pronominal elements, they should be able to move at least as high as strong pronouns otherwise do. Since the exact position to which the pronominal elements move is not crucial for the further discussion, it will be left for further research.

(19) *Pronoun movement*

a. Marko (juče) ni-je {NJU / nju} mudro
Marko yesterday NEG-AUX.3.SG 3.SG.F.ACC 3.SG.F.ACC wisely
savetovao.
advise.PRT.M.SG
'Yesterday, Marko did not advise { HER / her} in a wise manner.'

b. [$_{TP}$ yesterday [$_{TP}$ NEG-AUX [$_{XP}$ HER/her$_i$ [$_{vP/VP}$ wisely [$_{vP/VP}$ advised t_i]]]]] (Bešlin in press: 6)

Proposals on the trigger for such a movement include semantically-triggered object shift (moving out of the VP to avoid existential closure and receive a definite interpretation; Stojanović 1997), or categorially-driven movement (pronouns, unlike lexical nouns, are DPs and as such have to move to Spec, AgrOP to check the D-feature, Bešlin in press). Although the source of the trigger requires more elaborate research, it seems to me that the most probable explanation is the one that Bešlin (in press) rejects, namely information structure. Even though in (18a) it is argued that the interpretation of the pronoun is neutral (under the context assumed by Bešlin, the pronoun should refer to the topic of the previous discourse), compared to (18b), the strong pronoun still carries some sort of contrastive interpretation. Thus whereas focus might not necessarily be at play, some sort of contrast is definitely involved, as for instance in a contrastive topic. And these may require movement in BCMS. I will leave this issue for further research and come back to it briefly below in Section 5.3.

5.2 Pronouns in PP position

5.2.1 Assumptions

Having established that pronouns as complements of verbs move from their base position, we may extend this to pronouns in general, including those that are in the complement of P position. However, with the latter this movement will be blocked by the preposition. Below I will argue that this is exactly what leads to inanimate interpretations and sloppy readings in these specific contexts.

I will largely build my account on van Urk's (2018) proposal for pronoun copying, based on pronoun copying in Dinka Bor (Nilotic).[15] This language allows constructions in which a pronoun doubles a noun or another pronoun. This poses the challenge of having multiple copies of the same element in a sentence (as for instance in constructions with multiple copies of a verb that has undergone movement, see Abels 2001 for Russian, Landau 2006 for Hebrew). What is more, a mismatch can happen as in (20). Both examples involve an overt copy of a fronted object pronoun, realised as the 3.PL *kêek*. This pronoun matches the fronted pronoun only partially – in number, but not in person.

[15]See also Bošković (2001) for a copy-based account of clitic placement in Serbo-Croatian.

(20) a. wɔ̂ɔk c̣̈i bôl {kêek / *wɔ̂ɔk} ẗ̪iŋ
1.PL PRF.OV Bol.GEN 3.PL 1.PL see.INF
'Us, Bol has seen.'

b. wêek c̣̈i bôl {kêek / *wêek} ẗ̪iŋ
2.PL PRF.OV Bol.GEN 3.PL 2.PL see.INF
'You all, Bol has seen.' (Dinka Bor; van Urk 2018: 940)

Van Urk (2018) thus needs to account for pronoun movement and multiple-copy spellout. Building on Landau (2006), van Urk's analysis employs the copy theory of movement and a spellout algorithm that enables prononuciation of multiple copies. There are two conditions on copy-spellout, namely recoverability and economy. Recoverability requires that a copy be pronounced if it is associated with phonetic content and economy ensures that as little structure is spelled out as possible, amounting to one copy in a chain ("all unique phonetic content is realised at least once"; van Urk 2018: 964). Association with phonetic content is met either if an item has its own phonetic content, or if it appears in a position specified with some phonological requirement (Landau 2006: 31). These two conditions normally ensure that only one copy in a chain is pronounced and the others deleted. The spellout of multiple copies in Dinka is motivated by the peculiarities of phonological requirements related to the EPP features on *v*P and CP edges, which was taken to be a matter of parametric variation.

In a movement chain some copies will undergo full deletion (a precondition on deletion is that a unit must be a phase). For pronouns, van Urk also proposes a so-called PARTIAL DELETION. The *n*P may be a phase, which is taken to be a cross-linguistic parameter, and as such it can undergo copy deletion independently of the rest of the NP. The deletion operation includes the phase head as well, see van Urk (2018: 968f.). Deleting the *n*P thus leaves the rest of the projections in the pronoun intact, which results in a partial copy, including KP and NumP in his case. Since person information gets deleted together with *n*P (the locus of π under his account), the remaining copy need not match in person. In my account below, deleting the *n*P will exactly amount to spelling out a clitic, and I will assume that deleting the *n*P also deletes all of the contents of its sub-hierarchy.

5.2.2 Derivation

Following van Urk (2018), I will assume that pronominal *n*P in BCMS is a phase. I also assume that the target for movement and copying is the KP as in Figure 14. This ensures that only objects move. The pronoun moves through the edges of phases, stopping (at least) at the *v*P edge. Such a movement operation may create

multiple copies, some of which must be deleted. I posit that the difference in whether we will get a strong pronoun or a clitic depends on the phonological requirements related to their landing sites (e.g. if a pronoun is in a focus position, *n*P will be realised, resulting in a strong pronoun; if it is in a topical position, it will be deleted, resulting in a clitic). As a result of partial deletion, only the structure between *n*P and the highest KP gets realised, but not the *n*P itself. In my system this amounts exactly to a realisation of a clitic, as illustrated in Figure 14.

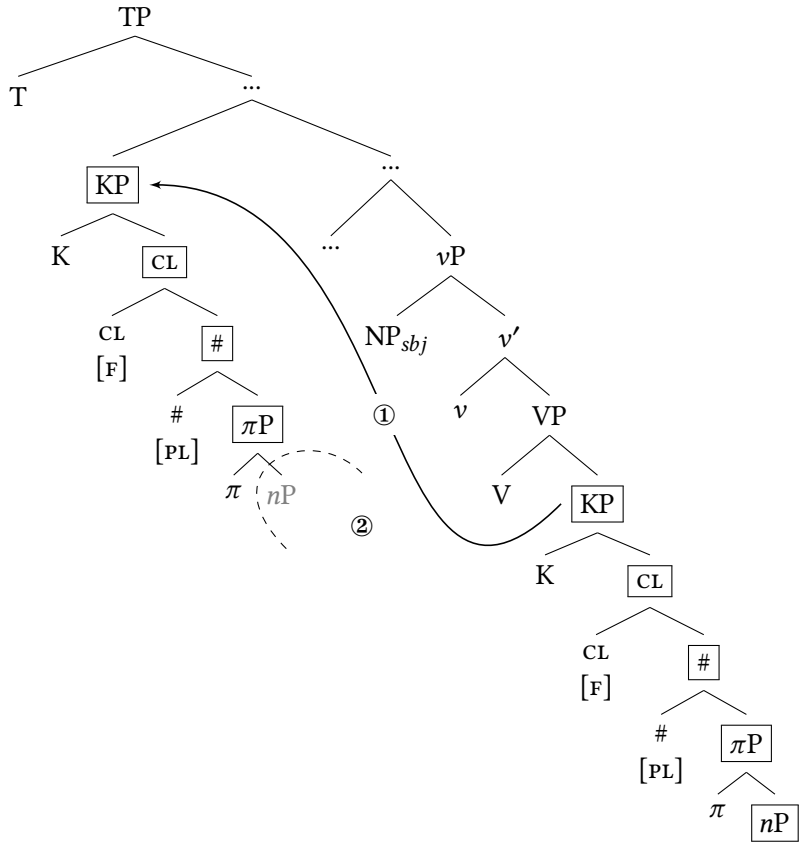


Figure 14: Pronoun movement, resulting in a clitic (here e.g. 3.F.PL)

The deletion of the *n*P makes the animacy and humanness features unavailable, leaving the clitic more flexible in terms of its interpretation by virtue of lacking the individuation information.

Applying the process above to pronouns in the complement of PP position will result in the preposition blocking the first step of the process. Assuming that PP is a phase, I will take the cause of the impossibility of extraction to be antilocality (Abels 2012, Milićev & Bešlin 2019). The moved pronoun would have to pass through the Spec, PP position, which is too short a movement step. This will in turn enforce the spellout of the full pronoun.

(21) PP blocking movement
[$_{PP}$ <KP> P [$_{\boxed{KP}}$ K [$_{\boxed{CLP}}$ CL [$_{\boxed{\#P}}$ # [$_{\boxed{\pi P}}$ π [$_{nP}$ n]]]]]]
↑ ✗ ↓

As a result, due to an inherent lack of stress on the prepositions under discussion, a clitic remains without a phonological host (see e.g. Talić 2018) or the possibility to move. The spellout of a strong pronoun may in this case be thought of as a last-resort strategy due to recoverability in order to satisfy the phonological requirements within the PP. As a result, the *n*P must be realised, and exactly in these contexts the pronoun can also be inanimate and have a sloppy reading (8) (i.e. formally a strong pronoun may functionally be a clitic). As an extension, if instrumental and locative are treated as PPs instead of KPs (e.g. Milićev & Bešlin 2019 for instrumental, or Stegovec 2019 for Slovenian), the behaviour of their complement pronouns (inanimate reference and sloppy readings, as in other PPs) follows automatically.

A further benefit of this analysis is that a clitic need not be animate or human, since those features remain stranded on the *n*P base and undergo deletion with it. A clitic may also act as a bound variable since the projections that are responsible for establishing reference are missing (see also Ruda 2021a,b for a claim that PersP is responsible for specificity and definiteness, which is absent in pronouns with a non-specific reading; on reference not requiring D in BCMS, see Trenkić 2004, Stanković 2014a,b, Arsenijević et al. 2022). In addition to this, the position of the DP in the structure is not crucial for the analysis.[16]

[16]The final issue is the nature and timing of the copy-deletion process. Van Urk (2018: 968) entertains the possibility that deletion may be seen as non-Transfer, under the assumption that Transfer applies to phasal units (e.g. as in Fox & Pesetsky 2005). He admits that this view raises an operation-ordering issue in terms of timing of Transfer and copy deletion, as copy deletion would have to precede Transfer, even though it is assumed to be a PF operation. He also admits that there is an issue of how long the copies actually have to stay visible in the derivation in order to evaluate which one in the chain will be spelled out. Adopting this premise would require that deleting the *n*P essentially means that it avoids Transfer to PF and LF. The absence of the features [ANIMATE] and [HUMAN] would allow for a more flexible interpretation since they cannot trigger presuppositions on the referent. PF would still need to have access to the *n*P somewhat longer though, at least until the next phase head is merged. This would result

5.3 Pronouns in focus position

This section provides a brief discussion on the extensions of the analysis above on pronouns in focus constructions. Recall that in BCMS only strong pronouns may express contrastive focus (or require a focused antecedent), while clitics are topical elements. We assumed above that if a strong pronoun is present in a context where a clitic is usually banned (PPs, focus contexts), such pronouns can be treated as clitics in disguise (Despić 2011: 244).

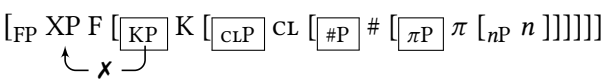
Under my proposal, the presence of focus on the pronoun should somehow be able to prevent the deletion of the *n*P or enforce its phonological realisation. Recall from examples (12)–(13) from Section 2.2.3 that a pronoun can be focused either by being in a particular position in a sentence (e.g. at the beginning or at the end) or by appearing with a particle. In the former case, under the account above, the focus position would impose a PF requirement that the element in this position must carry stress, thus a strong pronoun will be realised, as per recoverability and economy principles.

If a pronoun appears with an element that carries stress, as in example (13) above, one way to implement this technically is to assume that a pronominal phrase may include an additional functional layer, an FP, which may serve as a landing site for the movement of the clitic, as proposed by van Alem (2025). Van Alem justifies this by the existence of nouns with focus particles in Dutch, which can be accounted for under this kind of structure. This FP essentially adds focus to the DP and provides an escape hatch for the clitic to move through. If Spec, FP is already occupied by the focus material, the clitic cannot move out. Instead, it has to be pronounced *in situ*, which has different effects in different Dutch dialects. Despić (2011: 217) proposes a similar analysis especially for examples like (13) which include an overt focus element, such as the intensifier *sam*, although in his account this element projects its own phrase above the nominal projections. See Despić (2011) for further examples and discussion.

Applied to the case at hand, the specifier of the FP above KP introduces focus material, such as the intensifier *sam* (22), which would disable the movement of the KP. As a focus environment, just like a PP, requires a strong pronoun, the *n*P will have to be pronounced as last resort. Note that in the absence of a DP, movement of the KP to Spec, FP would also independently be banned due to antilocality (Abels 2012).

(22) FP blocking movement

in the possibility of realising the nP within the PP phase due to recoverability and economy, while the animacy features would be inaccessible.



Recall that sometimes it is not strictly focus, but some sort of contrastive interpretation that is also involved in these kinds of structures. I will tentatively assume that such constructions involve the same kind of structure as presented in (22), however further research is necessary to establish their exact nature.[17]

6 Conclusion and outlook

The aim of this paper was to develop a unified model of the form and structure of pronominal elements in BCMS in order to account for a wide set of their distributional properties, including morphological realisation, animacy restrictions, ability to function as bound variables, and the distribution in focus (and contrastive) contexts. In addition to presenting an overview of the data available in the literature on these various properties, I have introduced novel data that show that strong pronouns in the complement of PP position may be inanimate, and may allow for sloppy identity readings, contrary to expectation. The data are based on an informal survey, but nevertheless suggestive of the flexibility of the strong pronouns that has previously been overlooked.

I have argued that the behaviour of strong pronouns in PPs and focus contexts in terms of allowing for animate referents and bound variable interpretations makes them more clitic-like in these contexts. The mismatch between their form and distribution was resolved based on a proposal for their unified syntactic structure and restrictions on morphological realisation, based on a particular theory of pronominal copying.

[17] As noted by a reviewer, Slovenian clitics differ from BCMS ones. For instance, they can stand alone as answers to polar questions, and they can carry stress and appear in focus positions (see Dvořák 2007 for a full spectrum of variation and peculiar behaviour of Slovenian clitics). I would nevertheless expect them to behave the same in terms of animacy restrictions and sloppy readings, given their clitic status. The locus of variation would lie in the phonological requirements on the realisation of stress, such that in Slovenian it can be carried by the clitic itself, while in BCMS the realisation of the base is unavoidable. On the other hand, Slovenian makes use of a further type of pronouns such as *zá_nj* 'for him', which make use of the pronominal base in a PP, with a shift of the stress from the base onto the preposition. Note that it is not so clear-cut what portion of structure these pronouns actually involve, since the feminine version is syncretic with the strong pronoun *zá_njo* 'for her' (P-pronoun) vs. *za njó* 'for her' (PP). I will leave this issue as an avenue for further extension (Stegovec 2019 analyses these as lacking a referential index and the KP layer).

One of the main contributions of this paper is the proposal for a decomposed structure of pronominal elements in BCMS, that is applicable to other Slavic languages, but potentially also wider. I have argued that all pronouns are based on an *n*P, followed by ϕ-feature-bearing projections, such that person is local to the base, number follows it and gender tops them both ([CL [# [π]]]). These are followed by case-bearing projections, of which the nominative one is missing, and the others encode DEPendent case below OBLique one. Crucially for us, the features [ANIM] and [HUM] are encoded on the *n*P, and as such tied to individuation and referential properties of pronouns.

As a direct consequence, in case that the pronominal base undergoes deletion, the remaining structure becomes more flexible in terms of its interpretation. Specifically, leaving out the *n*P leaves us with a clitic, interpreted as either animate or inanimate, and either sloppy or strict. The deletion of the *n*P was implemented using van Urk's (2018) theory of pronominal copying. A benefit of this analysis was that cases where the *n*P had to be realised due to phonological reasons (PPs and focus/contrastive contexts) were exactly those in which strong pronouns show clitic-like behaviour. Another benefit of the approach is that it allowed us to treat locative and instrumental as PPs in BCMS, based on the parallels in the behaviour of strong pronouns between them and other cases.

One issue that remains open concerns dative clitics and sloppy readings. In particular, Runić (2014) notices that in BCMS only accusative clitics allow for sloppy identity readings, while with dative clitics this is impossible. We have however seen that strong pronouns in the complement of a preposition that inherently assigns dative case do not face such a restriction. One way to account for this may be to assume that the K_{OBL} phrase functions as some sort of a locality-domain-determining phrase and as such also restricts the interpretation of dative clitics. This issue will be left for further research. In addition to that, the next steps would include validating this proposal based on the data from other Slavic languages, as well as a broader range of crosslinguistic data.

Abbreviations

1	first person	LOC	locative
2	second person	M	masculine gender
3	third person	N	neuter gender
F	feminine gender	NEG	negative
ACC	accusative	NOM	nominative
ANIM	animate	OV	Object Voice
AUX	auxiliary	PL	plural
CL	class	PRF	perfect
CL	clitic	PRT	participle
DAT	dative	PRTCPT	participant
GEN	genitive	REFL	reflexive
HUM	human	SG	singular
INANIM	inanimate	SPKR	speaker
INF	infinitive	π	person
INS	instrumental	#	number

Acknowledgments

I would like to thank Artemis Alexiadou, Karolina Zuchewicz, the members of ZAS's Research Area 3 "Syntax and Lexicon" and the audience at FDSL 15 for their valuable comments and feedback. I also appreciate the comments of two anonymous reviewers and the editors, whose insights were of great help in writing the paper.

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