

PATTERNS OF AGREEMENT IN SERBIAN/CROATIAN/BOSNIAN RELATIVE CLAUSES

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1. INTRODUCTION AND BASIC DATA

Three Serbian/Croatian/Bosnian (SCB) nouns: *d(ij)ete* ‘child’, *brat* ‘brother’ and *gospodin* ‘gentleman’ differ from other nouns in the language in not forming morphological plurals (**bratovi*, **d(ij)eteta*, **gospodini*). Instead, these nouns have preserved productive collective forms (*d(j)eca*, *bra a*, *gospoda*), which take on the plurals use. These collective forms are morphosyntactically singular feminine nouns (belong to class II).

In SCB, determiners and adjectives agree with the nouns in gender, number, person, and case. Morphologically, nouns *bra a* ‘brothers.coll’ and *d(j)eca* ‘children’ are modified by a singular (feminine) determiner and/or adjective, but at the same time, they require a plural verb, as shown in (1) and (2).

1. Moja starija bra a idu/*ide u kupovinu.
my.SG.F. older.SG.F. brothers go/*goes in shopping
'My older brothers are going shopping.'

2. Sva pametna djeca idu /*ide u školu.
all.NOM.SG.F. smart.NOM.SG.F. children go /*goes in school
'All smart children go to school.'

Semantically, the noun *bra a* ‘brothers.coll’ is masculine plural, while *d(j)eca* ‘children’ is neuter plural. It seems, then, that these nouns show a discrepancy when it comes to the set of features responsible for agreement: DP-internally, it is the morphological features that dictate agreement, while DP-externally, it is the semantic features that determine agreement.

The noun *gospoda* ‘gentry.coll’ behaves like the noun *bra a* ‘brothers.coll’ and *d(j)eca* ‘children’ in that it also has to be modified by determiners and/or adjectives in feminine singular. It differs from the nouns *bra a* and *d(j)eca* in that it may cooccur with a singular or a plural verb:

3. Sva profinjena gospoda puši /puše cigare.
all.NOM.SG.F. refined.NOM.SG.F. gentry.NOM. smokes /smoke cigars
'All the refined gentlemen smoke cigars.'

Thus, the noun *gospoda* ‘gentry.coll’ may show morphological agreement both DP-internally and DP-externally, and it can also show hybrid agreement, on a par with the nouns *bra a* ‘brothers.coll’ and *d(j)eca* ‘children’.

In the rest of the talk, we will refer to the three nouns we discuss as *hybrid nouns*.

1.1. HYBRID NOUNS AS HEADS OF RELATIVE CLAUSES

SCB has two different ways of forming relative clauses (RCs) – those introduced by the complementizer *što* ‘that’, shown in (4) and those introduced by a wh-operator *koji/a/e* ‘which’, illustrated in (5). It is the latter that is relevant for our purposes.

4. Brod što sam ga o ekivao je uplovio u luku.
ship.SG.M that aux.1SG. him.ACC expected aux.3SG. sailed into harbor
‘The ship that I have been expecting has sailed into the harbor.’

5. Brod kojeg sam o ekivao je uplovio u luku.
ship.SG.M which.SG.M aux.1SG. expected aux.3SG. sailed into harbor
‘The ship that I have been expecting has sailed into the harbor.’

As can be observed in (5), the relative pronoun *koji* ‘which’ agrees with the head of the relative clause in number and gender. The same is true when the RC introduced by *koji* ‘which’ is non-restrictive:

6. Onaj brod, kojeg sam o ekivao, je uplovio u luku.
that ship.SG.M which.SG.M aux.1SG. expected aux.3SG. sailed into harbor
‘That ship, which I have been expecting, has sailed into the harbor.’

However, when the head of the RC is one of the three nouns (*d(j)eca*, *bra a*, *gospoda*), the relative pronoun *koji* ‘which’ shows different types of agreement, depending on whether it introduces a restrictive RC (RRC) or a non-restrictive RC (NRC).

1.1.1. HYBRID NOUNS AS HEADS OF RRCs

In RRCs, agreement marking on *koji* ‘which’ depends on the case in which the relative pronoun surfaces: when it is in **nominative** or **accusative**, it agrees with morphological (feminine singular) features of the head noun (syntactic agreement), as shown in (7) and (8) below for the noun *bra a* ‘brothers.coll’. Agreement with semantic features (masculine/neuter plural) is disallowed.

7. a. bra a **koja** me vole RRC-NOMINATIVE
brother.COLL which.NOM.F.SG me.ACC love.3PL ✓*syntactic agreement*
‘brothers that love me’

b. *bra a **koji** me vole **semantic agreement*
brother.COLL which.NOM.M.PL me.ACC love.3PL
‘brothers that love me’

8. a. bra a **koju** volim RRC-ACCUSATIVE
brother.COLL which.ACC.F.SG love.1SG ✓*syntactic agreement*
‘brothers whom I love’

- b. *bra a **koje** volim *semantic agreement
 brother.COLL which.ACC.M.PL love.1SG
 ‘brothers whom I love’

However, when the relative pronoun *koji* ‘which’ appears in any other case, then it can agree either with morphological features of the head noun (feminine singular) or with its semantic features (masculine/neuter plural). This is shown in (9) for dative.

9. a. bra a **kojoj** pokazujem ku u RRC-DATIVE
 brother.COLL which.DAT.F.SG show.1.SG. house.ACC ✓ syntactic agreement
 ‘brothers to whom I am showing the house’
- b. bra a **kojima** pokazujem ku u ✓ semantic agreement
 brother.COLL which.DAT.M.PL show.1.SG. house.ACC
 ‘brothers to whom I am showing the house’

1.1.2. HYBRID NOUNS AS HEADS OF NRCs

NRCs contrast with RRCs in that the relative pronoun *koji* ‘which’ may agree with the three nouns either in morphological or semantic features in all cases.

10. a. moja bra a, **koja** me vole NRC-NOMINATIVE
 my.F.SG. brother.COLL which.NOM.F.SG me.ACC love.3PL ✓ syntactic agreement
 ‘my brothers, who love me’
- b. moja bra a, **koji** me vole ✓ semantic agreement
 my.my.F.SG. brother.COLL which.NOM.M.PL me.ACC love.3PL
 ‘my brothers, who love me’

11. a. moja bra a, **koju** volim NRC-ACCUSATIVE
 my.F.SG. brother.COLL which.ACC.F.SG love.1SG ✓ syntactic agreement
 ‘my brothers, whom I love’
- b. % moja bra a, **koje** volim ✓ semantic agreement
 my.F.SG. brother.COLL which.ACC.M.PL love.1SG
 ‘my brothers, whom I love’

12. a. moja bra a, **kojoj** pokazujem ku u NRC-DATIVE
 my.F.SG. brother.COLL which.DAT.F.SG show.1.SG. house.ACC ✓ syntactic agreement
 ‘my brothers, to whom I am showing the house’
- b. moja bra a **kojima** pokazujem ku u ✓ semantic agreement
 my.F.SG. brother.COLL which.DAT.M.PL show.1.SG. house.ACC
 ‘my brothers, to whom I am showing the house’

Finally, we note that for some speakers, (11b) is ill-formed. More generally, there are speakers who find degraded any RC in which the relative pronoun is accusative and bears semantic agreement.

2. THE PROBLEMS

In this talk, we will attempt to answer the following questions:

- i. What forces syntactic agreement between the hybrid head noun and the relative pronoun in **RRCs**, when the relative pronoun is nominative or accusative (but not in other cases)?
 - o Explain the contrast between (a) and (b) examples in (7)-(8), and the lack thereof in (9).
- ii. What accounts for the fact that, in contrast with **RRCs**, syntactic agreement is not forced in **NRCs**, when the relative pronoun appears in nominative and accusative?
 - o Explain the contrast between (7b) and (10b) as well as between (8b) and (11b).
- iii. What explains the fact that some speakers find ungrammatical **NRCs** with the relative pronoun semantically agreeing with the hybrid noun (11b), i.e. what makes semantic agreement impossible when the relative pronoun is accusative?

The answer that we propose for question (ii) argues against an analysis of **NRCs** (Kayne, 1994; Bianchi, 2000) on which **NRCs** have the same overt syntax as **RRC**, but differ from them at the level of the LF: **NRCs**, unlike **RRCs**, involve an LF adjunction of the remnant relative IP to the head DP.

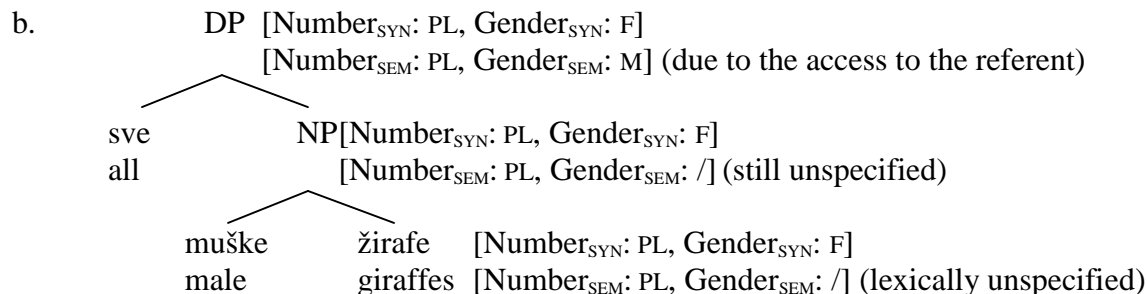
3. THE MECHANICS OF SEMANTIC AGREEMENT

We assume an account of semantic agreement in which it takes place in narrow syntax and involves a particular set of semantically sensitive syntactic features. Importantly, these features are directly determined by the information specified in two other domains:

- **LEXICALLY SPECIFIED SEMANTIC INFORMATION** – accessible in the lexical domains of syntax, i.e. in domains local to the relevant lexical items,
- **SEMANTIC INFORMATION CONTAINED IN THE DISCOURSE** – accessible at the points of syntactic derivation where the semantic spell-out [potentially] leads to establishing reference.

In more concrete terms, it is possible that different levels in the syntactic structure of a nominal expression bear different specifications of their semantic agreement features. Features that are not specified in N, or NP, may get their specification at the level of DP, once reference is established and properties of the referent are accessible. In particular, this is the case with some hybrid agreement nouns, such as the one in (13), where the subject of the first clause *sve muške žirafe* ‘all male giraffes’ dictates feminine agreement (both DP-internally and DP-externally), while the subject pronoun in the second clause (once reference is established) can also surface as masculine (*oni* ‘they.M’).

13. a. Sve/*Svi muške /*muški žirafe su bolesne/*bolesni. One/Oni moraju da ostanu.
all.F.PL/*M.PL male.F.PL /*M.PL giraffe are ill.F.PL/*M.PL. they.F/M must.PL that stay.PL
'All male giraffes are ill. They have to stay.'



As shown by the quantifier *sve* 'all', which must take the feminine form, the lexical semantics of the adjective *muške* 'male' cannot specify the value of the semantic gender feature. The adjective does not project and the point of establishing reference is not reached yet.

On the other hand, pronouns, which are co-referential with an antecedent, clearly have access to the referent and its properties, and hence may show semantic agreement even with weakly hybrid agreement nouns.

More generally, then, the availability of semantic agreement seems to depend on the structural position of the agreement target.

4. THE ANALYSIS OF AGREEMENT IN RESTRICTIVE RELATIVE CLAUSES (RRCs)

As we have already seen, RRCs allow only syntactic agreement if the relative pronoun is nominative or accusative, but both semantic and syntactic agreement are grammatical in other cases.

This split (NOM/ACC versus all other cases) matches a more general division in the case marking of the relative pronoun *koji/a/e* 'which', which results either in the expression or in the lack of the expression of gender features.

Plural forms of *koji/a/e* 'which' mark gender only in nominative and accusative (14a), while in all other case forms the three genders show syncretism (14b).

14. a. *Relative pronoun koji/a/e* 'which': *Nominative and Accusative plural forms*

NOM: MASC:	koj-i	stolov-i	FEM: koj-e	jabuk-e	NEUT: koj-a	sunc-a
	which.PL.M	tables.PL.M	which.PL.F	apples.PL.F	which.PL.N	suns.PL.N
ACC: MASC:	koj-e	stolov-e	FEM: koj-e	jabuk-e	NEUT: koj-a	sunc-a
	which.PL.M	tables.PL.M	which.PL.F	apples.PL.F	which.PL.N	suns.PL.N

b. *Relative pronoun koji/a/e 'which': Dative, Genitive, and Instrumental plural forms*

DAT: MASC: koj-im stolov-ima	FEM: koj-im jabuk-ama	NEUT: koj-im sunc-ima
which.PL tables.PL.M/N	which.PL. apples.PL.F	which.PL.N/M suns.PL.N
GEN: MASC: koj-ih stolov-a	FEM: koj-ih jabuk-a	NEUT: koj-ih sunac-a
which.PL tables.PL	which.PL. apples.PL	which.PL suns.PL
INST: MASC: koj-im stolov-ima	FEM: koj-im jabuk-ama	NEUT: koj-im sunc-ima
which.PL tables.PL.M/N	which.PL. apples.PL.F	which.PL suns.PL.M/M

The patterns of agreement in RRCs (syntactic in NOM and ACC; either syntactic or semantic in all other cases) can be explained under the hypothesis that in RRCs, the relative pronoun agrees with the head noun at a level lower than the DP. It is thus limited to agree with the features lexically specified on the head noun.

Two such sets of features are available:

- i. SYNTACTIC FEATURES, matching the noun's declension class (feminine singular in the case of the hybrid nouns),
- ii. SEMANTIC FEATURES, matching the semantic contribution of the head noun (in our case, the semantic features of the collective ending).

While the collective ending clearly carries a specification of a semantic plurality, we argue that it is unspecified for gender.

Collective forms are described as denoting assemblies of units mixed with respect to gender.

15. a. dva ov(j)eka	b. dv(ij)e žene	c. dvoje ljudi
two.M men	two.F women	two.COLL people (mixed)

However, it is also pragmatically appropriate to use the collective form (15c) to denote:

- two human individuals whose genders are unknown to the speaker,
- any assembly involving children, or other neuter animate nouns, or
- even two individuals of the same gender in contexts where gender is not relevant (although this is less preferred compared to the variant that marks gender, as in (15a) or (15b)).

This suggests that the collective forms are simply unspecified for gender, and that their common use for assemblies of mixed or masculine gender is pragmatically, and not syntactically determined.

The fact that the collective ending is interpreted as denoting mixed gender is a result of the scalar implicature that arises due to the availability of the alternatives for gender-uniform assemblies that express gender in a more precise way. As to the interpretation of the collective ending as masculine or neuter, it comes from our encyclopedic knowledge about brothers that they are men, or about children that they are without a strong gender component.

Crucially for our purposes, it is not uncommon to use the nouns *d(j)eca*, *bra a* or *gosпода* to refer to mixed gender assemblies or assemblies of an unknown gender composition.

If the agreement between the relative pronoun *koji/a/e* ‘which’ and the head noun in RRCs takes place at the NP level, where the nominal expression has not yet established reference, the agreement is limited to the features carried by the lexical noun (i.e. its syntactic and semantic features).

The three hybrid nouns under discussion are all headed by their collective ending, hence unspecified for gender. The syntactic features on the relative pronoun *koji/a/e* ‘which’ undergo agreement with the syntactic features on the hybrid head noun, which results in the valuation/checking of the features on the pronoun.

However, when the semantic features on the relative pronoun attempt to agree with the semantic features on the hybrid head noun of the RRC, the relative pronoun fails to value its gender feature, given that this feature is not specified on the collective ending. Even if the lexical semantics of the stem bears relevant information, it is syntactically inaccessible due to the intervention of the collective ending. Assuming that agreement is feature copying from the goal onto the probe (Chomsky 1998; ezá , 2003), the gender feature on the relative pronoun becomes valued as unspecified. As the relative pronoun in nominative and accusative has only gender-specific forms, no form of the pronoun can be inserted based on the values of its semantic features.¹ This is schematically illustrated in (16) for the noun *bra a* ‘brothers.COLL’.

16.

bra a [Number_{SEM}: PL, Gender_{SEM}: /] { koji [Number_{SEM}: PL, *Gender_{SEM}: M],
koje [Number_{SEM}: PL, *Gender_{SEM}: F],
koja [Number_{SEM}: PL, *Gender_{SEM}: N] }

By contrast, in other cases, such as dative, instrumental or genitive, the plural form of the relative pronoun does not depend on the gender. It is sufficient that the case and the number be known. Thus, after the agreement between the semantic gender feature on the relative pronoun with the unspecified semantic feature on the hybrid noun, the fact that the gender remains unspecified causes no problems, as shown in (17).

17. bra a [Number_{SEM}: PL, Gender_{SEM}: /] kojima [Number_{SEM}: PL, Gender_{SEM}: /]

Thus, in RRCs, semantic agreement fails because, when the gender feature on the plural form of the relative pronoun undergoes agreement with the unspecified gender feature on the collective ending (which heads the three hybrid nouns), it itself becomes in a sense unspecified. This precludes the spellout (lexical insertion) of the relative pronoun in nominative and accusative, since in these cases the relative pronouns have different forms for different genders. Since in other cases gender does not contribute to the choice of the form of the relative pronoun (all three genders are syncretic), semantic agreement is possible.

¹ We assume that semantic features, since they have semantic entailments, have not default values. This prevents the unspecified gender feature to be replaced with the default masculine.

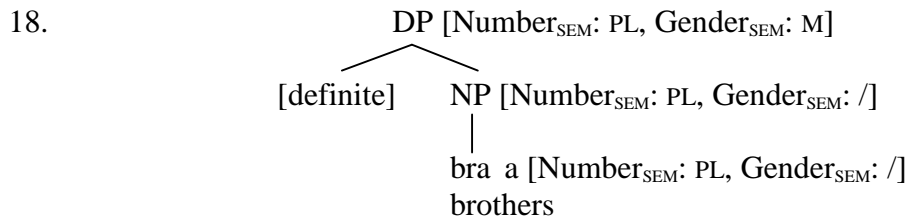
5. THE ANALYSIS OF AGREEMENT IN NRCs

Recall that, unlike in RRCs, in NRCs the morphology on the relative pronoun *koji/a/e* ‘which’ may reflect either syntactic ([a] examples in [10-12]) or semantic agreement ([b] examples in [10-12]), regardless of the case. The question arises why NRCs headed by hybrid nouns behave differently from comparable RRCs.

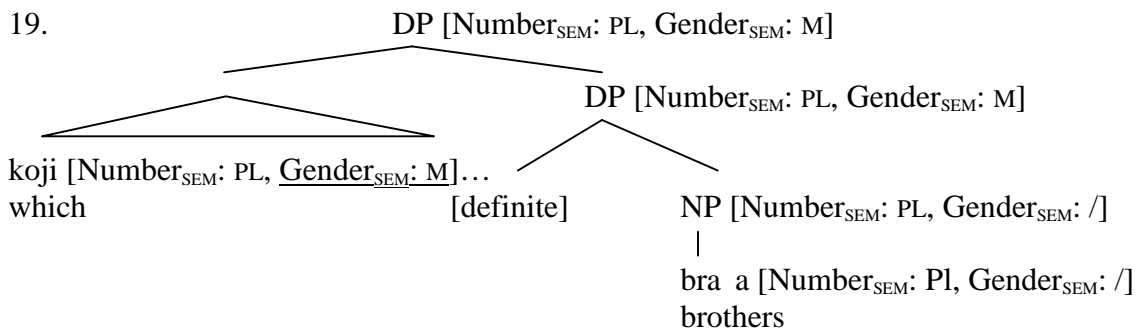
All syntactic analyses of the asymmetries between RRCs and NRCs share one common component: RRCs are somehow related to the NP domain and do not figure in higher projections, while NRCs are (also) related to the DP. This is a reflex of the generalization that NRCs attach to referential nominal expressions only.

Referential expressions identify referents in the relevant domain and these referents bear richer information than the expressions used to refer to them. In particular, they are able to provide a specification for the features that the linguistic expressions leave unspecified. Thus, *bra a* ‘brothers.COLL’ as a noun bears no value of semantic gender, but once it is used as a referential expression, i.e. once it establishes reference, the properties of the referent may be imported to add a semantic gender specification to the referential expression.

Let us put this in a syntactic perspective. As referential expressions are full DPs (e.g. Longobardi 1994), the relevant opposition in gender specification is between the noun *bra a* ‘brothers.COLL’ (and the NP that it heads) on the one hand, and the DP projected on top of it on the other. While the NP simply denotes a property, the DP identifies a referent. In our view of agreement, properties of the particular referent can specify semantic features that are unspecified on the DP. This is schematically represented in 18, assuming a discourse in which the DP refers to a set of male individuals.



This effectively yields all DPs projected by a hybrid noun specified for gender. The prediction is that such DPs may establish semantic agreement with relative pronouns in any case form.



This prediction indeed matches the empirical picture that was our starting point.

In NRCs, the relative pronoun may carry morphology that reflects syntactic as well as semantic agreement. This is due to the fact that the phrase with which the pronoun is agreeing (DP) has a set of fully specified syntactic and semantic features.

On the other hand, in RRCs, we observed a split in the patterns of agreement between the relative pronoun and a hybrid noun: the relative pronoun in nominative and accusative necessarily displays syntactic agreement with the head noun. This is due to the fact that the phrase with which the relative pronoun is agreeing (NP) has an unspecified semantic gender feature. However, in order to be spelled out, the relative pronoun in these cases must be specified for gender. This results in syntactic agreement, given that both syntactic number and syntactic gender features are specified. In cases other than nominative and accusative, the relative pronoun need not be specified for gender, so the unspecified semantic gender feature of the hybrid noun does not affect the spellout, making semantic agreement possible.

There is only one case that the analysis does not predict: there are speakers who find ungrammatical all relative clauses (both RRCs and NRCs) in which the accusative relative pronoun undergoes semantic agreement with the hybrid nouns that are target of our discussion.

20. % moja bra a, koje volim NRC-ACCUSATIVE
my.F.SG. brother.COLL which.ACC.M.PL love.1SG
'my brothers, whom I love'

This issue is dealt with in section (7).

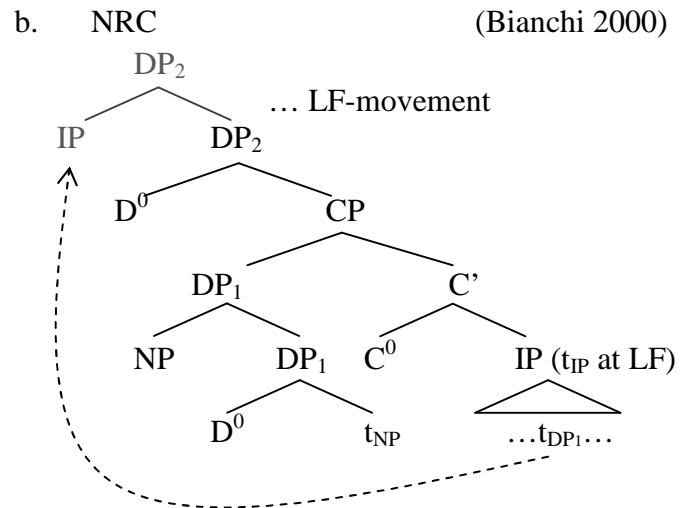
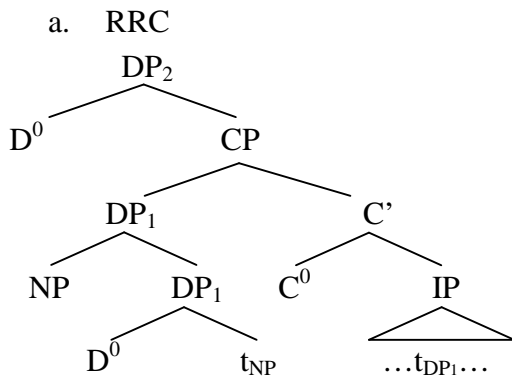
6. IMPLICATIONS FOR ANALYSES OF RELATIVE CLAUSES

Here, we point out a theoretical consequence that our proposal yields for the analysis of NRCs.

Two different types of analyses of the asymmetries between RRCs and NRCs can be found in the literature. According to the first type (Kayne, 1994; Bianchi, 2000; Demirdache; 1991), RRCs and NRCs have the same overt, but differ in their LF syntax.

Demirdache (1991) generates NRCs as NP adjuncts, which move at LF to adjoin to DP. Kayne (1994) and Bianchi (2000) extend the head-raising analysis of RRCs (Brame (1968), Schachter (1973), Vergnaud (1974), Åfarli (1994), Safir (1999), Hornstein (2000) and Bhatt (2002)) to NRCs. On this approach, NRCs, like RRCs, involve the overt movement of the relativized NP from its base-generated position in the relative clause to the external position forming the head of the relative clause. This is followed, at LF, by the movement of the remnant relative IP to a position where it is no longer c-commanded by D⁰.

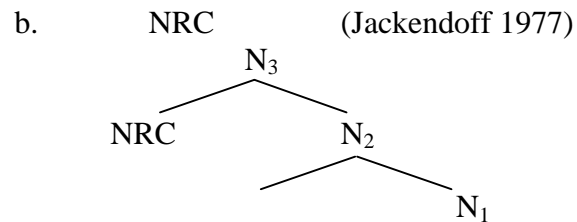
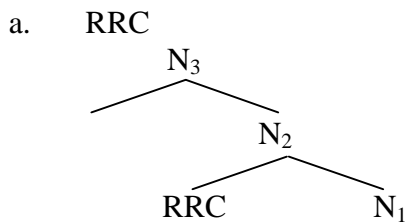
21. Type 1 – difference restricted to LF



Since agreement (both syntactic and semantic) must happen in narrow syntax (because it has consequences for the spellout), postulating the same narrow syntactic structures for both RRCs and NRCs cannot account for the agreement asymmetries.

The other type of analyses postulates that the difference between RRCs and NRCs is a reflex of their overt syntax. Jackendoff (1977) and similar accounts propose that RRCs adjoin to the NP, while NRCs adjoin to the DP (or N₃ in Jackendoff's own terms).

22. Type 2a – RRCs attach to NP, NRCs to DP



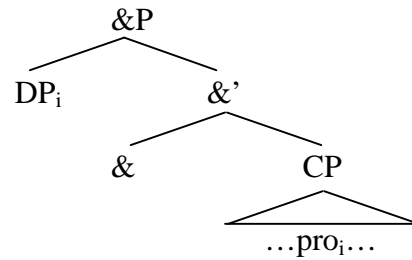
Asymmetries in the agreement between RRCs and NRCs can be derived, assuming adequate specifications for N₂ and N₃, i.e. NP and DP.

De Vries (2002, 2006) argues that, unlike RRCs, NRCs involve a coordinate structure in which the NRC, headed by a null D⁰, is coordinated with the head DP of the NRC by specifying conjunction. Within the second conjunct, the relative pronoun has a null NP as its complement (we represent this NP as pro).

23. Type 2b – NRCs underlyingly involve clausal conjunction and a personal pronoun

a. RRC
 standard or raising analysis

b. NRC (de Vries 2006)



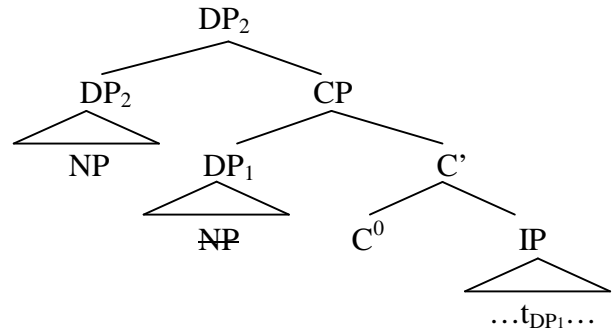
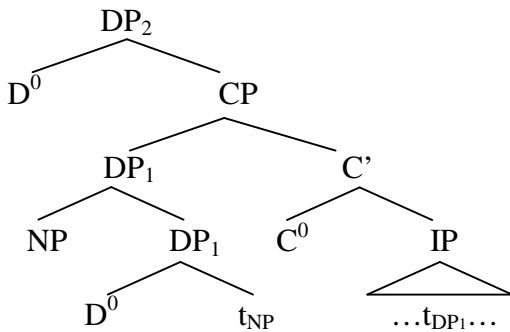
Pronouns have access to the referent, hence pro is expected to have available access to its properties.

Finally, Resi (2011) proposes that RRCs involve a head-raising analysis (Kayne, 1994), while NRCs are best explained by the matching analysis (Sauerland, 1998).

24. Type 2c – RRCs raise, NRCs match

a. RRC

b. NRC (Resi 2011)



Differences in agreement patterns can be derived, assuming e.g. that in the raising structure the referent is accessible only to the highest D.

Assuming that agreement, as a core syntactic phenomenon with overt phonological effects, depends on the structural configurations in the narrow syntax, the analysis of the hybrid agreement facts provides evidence against the first type of analyses. Moreover, it seems impossible that any analysis of RRCs and NRCs may maintain identical narrow syntactic configurations for the two and still account for the empirical facts, while maintaining the assumption above about the narrow syntax as the locus of agreement.

7. EXCEPTIONAL ACCUSATIVE

In this section we return to the problematic case of the accusative. As we said before, RRCs headed by a hybrid noun, in which the relative pronoun is nominative or accusative resist semantic agreement, as in (25a). Comparable NRCs, which contain accusative relative pronoun (25b), are acceptable to some speakers, unacceptable to others.

25. a. *bra a koje volim *semantic agreement
brother.COLL which.ACC.M.PL love.1SG
'brothers whom I love'
- b. % moja bra a, koje volim % semantic agreement
my.F.SG. brother.COLL which.ACC.M.PL love.1SG
'my brothers, whom I love'

The analysis we presented here accounts for the grammar of the speakers who find (25b) grammatical. In order to account for the other grammar, the one possessed by the speakers who find (25b) bad, we need to explain why accusative behaves exceptionally compared to all other cases, structural or not.

In order to explain the exceptional absence of semantic agreement between the accusative relative pronoun and the hybrid head noun, we follow Gračanin-Yuksek (to appear), who, based on the data from *što*-relative clauses (as in (4)), argues that in SCB, the features checked in the agreement between v^0 and its goal must be spelled-out. This is a spell-out oriented version of the *Inverse Case Filter* (Bošković 1997, 2002; Martin 1999).

This account rests on the generalization which holds for *što*-relative clauses that the resumptive pronoun within the RC is obligatory except in cases where the argument it resumes would be spelled out exactly the same as if it were case-marked by the matrix predicate. This contrast is illustrated in (26): while (26a) is bad without the resumptive pronoun, (26b) is well-formed.

26. a. Želja [što sam *(je) osjetio_{+acc} ___] bila_{+nom} je jaka.
desire.F.NOM [that Aux.1SG *(her.ACC) felt_{+acc} ___] been_{+nom} Aux.3SG strong.F.NOM
'The desire that I felt was strong.'
- b. Ljubav [što sam (je) osjetio_{+acc} ___] bila_{+nom} je jaka.
love.F.NOM/ACC [that Aux.1SG (her.ACC) felt_{+acc} ___] been_{+nom} Aux.3SG strong.F.NOM
'The love that I felt was strong.'

Gračanin-Yuksek (to appear) proposes that the resumptive pronoun in (26b) may be absent because in that case, the accusative case features are spelled-out on the head of the relative clause, which is impossible in (26a).

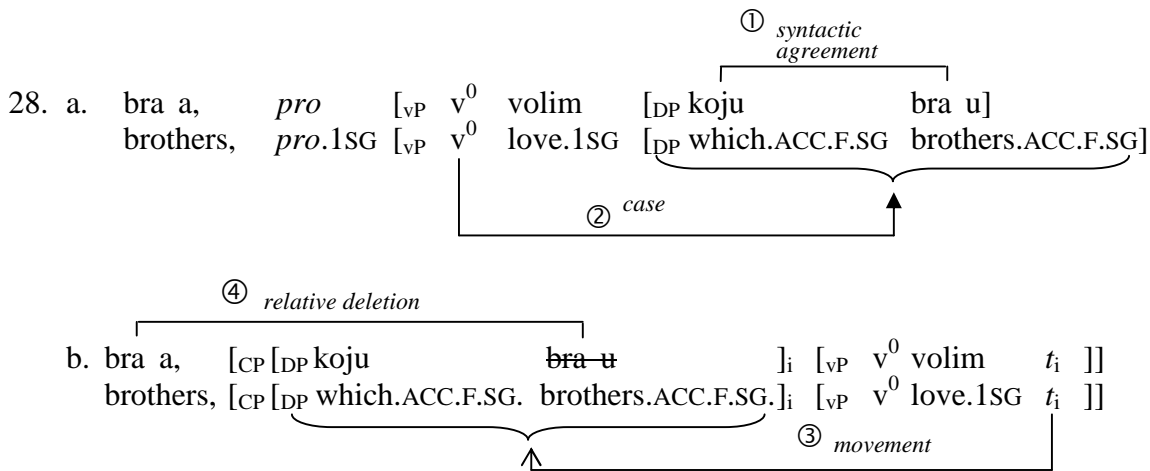
Here, we propose that it is this requirement that prevents the accusative relative pronoun *koji/a/e/* 'which' to show semantic agreement with the hybrid head in NRCs.²

Assuming that NRCs involve a matching analysis, i.e. that they contain the internal head which is then deleted under the identity with the external head (Sauerland, 1998), the derivation of an object relative clause in (27) proceeds as in (28): the relative pronoun relative-clause-internally agrees with the internal head, which carries the features feminine singular. Consequently, the relative pronoun also must be feminine singular. The entire DP is case-marked by v^0 , and receives accusative case: *koju bra u* (28a).

² If this explanation is on the right track, it might hold for the absence of the possibility of semantic agreement in RRCs as well, assuming that RRCs also involve a matching analysis.

Subsequently, the internal head *koju bra u* raises to [Spec, CP] where the noun *bra u* is deleted under the identity with the external head (28b).

27. moja bra a, koju / *koje volim
 my.F.SG.brother.COLL which.ACC.F.SG / which.ACC.M.PL love.1SG
 ‘my brothers, whom I love’



The relative pronoun *koju* is now the only element that spells-out the features that participated in the agreement between the DP and v⁰, and since these features include feminine and singular, the relative pronoun must surface in this form (*koju*).

If this analysis is on the right track, it explains why some speakers find the semantic agreement morphology on the accusative relative pronoun ungrammatical even in NRCs headed by a hybrid noun.

8. CONCLUSION

In this talk, we proposed an account of asymmetries in agreement patterns that obtain in RRCs and NRCs headed by hybrid nouns *d(j)eca* ‘children’, *bra a* ‘brothers’, and *gospada* ‘gentry’ in SCB.

RRCs and NRCs headed by such hybrid nouns display the same behavior in examples where the relative pronoun *koji/a/e* ‘which’ is case-marked dative, genitive or instrumental. In these cases, alongside syntactic agreement (feminine singular), semantic agreement (masculine/neuter plural) is also possible.

The two types of relative clauses differ, however, in that semantic agreement remains possible in NRCs when the relative pronoun is case-marked nominative or accusative; this, however, is disallowed in RRCs. Under minimal assumptions, our data implies that RRCs and NRCs cannot have identical structures in narrow syntax.

We argued that, even when semantic agreement is available both in RRCs and NRCs, its availability depends on different factors.

In NRCs, we argued that semantic agreement is possible due to the fact that the relative pronoun enters agreement with the semantic features on the DP minimally containing the head noun, rather than with the NP projected by the noun. By the time this agreement happens, the value of the semantic gender feature, which is unspecified on the noun itself, has been determined on the DP by the properties of the referent. This approach lends support to the analyses of NRCs on which they modify DPs rather than NPs (whatever the implementation may be). Since the properties of the referent become equally accessible regardless of the case marking on the relative pronoun, semantic agreement is allowed not only in dative, genitive, and instrumental, but also in nominative and accusative.

The same explanation, however, cannot be offered for the availability of semantic agreement in RRCs because the relative clause attaches too low. In other words, since RRCs modify NPs, and not DPs, they attach to the NP before reference has been established. Thus, when the semantic gender feature agrees with the hybrid head noun (more precisely, with the collective ending that heads it), it receives an unspecified value. This precludes the spellout of the relative pronoun in nominative and accusative because in these cases, the plural forms of the pronoun are fully specified for gender, so none can be inserted if the gender specification is absent. In other cases, however, the relative pronoun *itself* seems to be unspecified for gender, i.e. it is syncretic in all three genders, so it may be spelled out.

The proposed analysis thus accounts for the split in agreement patterns between RRCs and NRCs in nominative and accusative and it also accounts for the RRC-internal asymmetry between nominative and accusative on the one hand, and all other cases on the other.

Finally, we noted that, even in NRCs, not all speakers find equally grammatical cases in which the accusative relative pronoun features semantic agreement with the hybrid head noun. In order to account for the grammar of the speakers who find such examples ill-formed, we proposed that it is due to the requirement that is operative in SCB that the features on a constituent which enters agreement with v^0 be *overtly* realized (Grašin-Yukseš, to appear).

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