# Free Relatives in Croatian: An Argument for the Comp Account

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The article argues for the Comp account (e.g., Groos and Van Riemsdijk 1981) over the head account (e.g., Bresnan and Grimshaw 1978) of free relatives (FRs), on the basis of several converging arguments from Croatian. Evidence from reconstruction effects shows that the *wh*-phrase introducing a free relative (WH$_{FR}$) originates inside the relative clause and *wh*-moves to its surface position. In addition, arguments from clitic placement show that the derived position of the WH$_{FR}$ is no higher than Spec,CP of the FR.

*Keywords:* free relatives, relative clauses, Croatian, clitics

## 1 Introduction

Free relatives (FRs) have the following form:

(1) I will eat [$_{FR}$ what (ever) you cook].

In this article, I examine FRs in Croatian. I argue that in this language, the *wh*-phrase that introduces an FR (WH$_{FR}$) occupies Spec,CP of the relative clause, a position to which it raises from inside the FR.

Analyses of FRs proposed in the literature have varied with respect to two parameters:[1]

- the surface position attributed to the WH$_{FR}$ (Spec,CP or higher);
- the derivational history of the WH$_{FR}$ (raising vs. External Merge).

These two parameters of analysis create the space of logical possibilities for the derivation of FRs shown in table 1. The analysis schematized in (a) of table 1 was proposed for English FRs by Bresnan and Grimshaw (1978) and adopted by Larson (1987) and Citko (2002), among others. According to this approach, the WH$_{FR}$ is the head of the FR and it is externally merged in its surface position, outside the relative clause that follows it. I will call this analysis the *external-head account*.

[1] The same parameters (applied to the head NP of a headed relative clause) are also responsible for different analyses proposed for headed relatives. I address these in footnote 9.

**Table 1**
Logically possible analyses of free relatives (WH$_{FR}$ = *wh*-phrase that introduces a free relative)

| Position of WH$_{FR}$ | Derivational history of WH$_{FR}$ | |
| --- | --- | --- |
| | Externally merged | Raised |
| External to CP | a. [WH$_{FR}$ [$_{CP}$ …]] | b. [WH$_{FR}$ [$_{CP}$ … ~~WH$_{FR}$~~ …]] |
| Internal to CP | c. [$_{CP}$ WH$_{FR}$ …] | d. [$_{CP}$ WH$_{FR}$ … ~~WH$_{FR}$~~ …] |

The analysis schematized in (b) of table 1 was proposed by Hirschbühler (1976), Bury and Neeleman (1999), and Iatridou, Anagnostopoulou, and Izvorski (2002). According to these authors, the WH$_{FR}$ raises from inside the FR, to occupy a position outside it. I will call this analysis the *derived-head account*.

Finally, the analysis schematized in (d) of table 1 was proposed by (among others) Groos and Van Riemsdijk (1981), Harbert (1983), Suñer (1983), and Grosu and Landman (1998). According to this approach, the WH$_{FR}$ occupies the specifier position of the relative clause, not a position external to the relative CP. This approach assumes that an FR is a modifier of a null head, as in (2), possibly a *pro*, as argued by Groos and Van Riemsdijk (1981), or a PRO, as argued by Harbert (1983).[2] This analysis has come to be known as the *Comp account* of FRs.

(2) [$_{NP}$ Ø [$_{CP}$ *wh*-phrase$_i$ . . . t$_i$]]

To my knowledge, the possibility schematized in the shaded cell (c) of table 1 has not been proposed in the literature. This analysis shares with the external-head account the merging of a *wh*-phrase in its *surface* position, and it shares with the Comp account the idea that this position is Spec,CP of the FR. In the rest of the article, we will see that reconstruction phenomena in Croatian provide good evidence against *externally* merging the WH$_{FR}$ in Spec,CP of an FR. Furthermore, unlike the external-head account, the analysis in (c) of table 1 fails to use the merger site of the WH$_{FR}$ to account for the *matching effect*, the phenomenon exhibited by FRs in some languages including Croatian, whereby the WH$_{FR}$ has to satisfy selectional category and case requirements of both matrix and embedded verbs. The matching effect is illustrated in (3)–(5), for English, German, and Croatian.[3]

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[2] It has been proposed that FRs are just bare CPs (Rooryck 1994, Jacobson 1995), without being modifiers of a null head. See also Izvorski 1998 for relevant discussion.

[3] As a reviewer points out, languages differ with respect to the kinds of matching effects they observe. Often, differences are found even within a single language. Here I illustrate the matching effect for Croatian in object FRs.

(3) *English: Category matching*
    a.   John will see whoever Bill brings.
    b.  *John will see with whoever Bill comes.

(4) *German: Case matching*
    a.   Wer       schwach ist, muss klug   sein.
        who.NOM weak     is   must clever be
        'Whoever is weak is clever.'
        (Kubota 2003:147, (1a))
    b.  *Wer      klug   ist, vertraue ich.
        who.NOM clever is   trust$_{DAT}$ I
        Intended: 'I trust whoever is clever.'
        (Adapted from Kubota 2003:147, (1b))

(5) *Croatian: Case matching*
    a.   Petar će kupiti koji       god auto    Ivan prodaje.
        Petar will buy$_{ACC}$ which.ACC ever car.ACC Ivan sells$_{ACC}$
        'Petar will buy whichever car Ivan is selling.'
    b.  *Petar će kupiti kojem     god autu    Ivan vjeruje.
        Petar will buy$_{ACC}$ which.DAT ever car.DAT Ivan trusts$_{DAT}$
        Intended: 'Petar will buy whichever car Ivan trusts.'

Under the external-head account (Bresnan and Grimshaw 1978), the matching effect is accomplished by externally merging the WH$_{FR}$ in the surface position, which is outside the relative CP, while the ''gap'' position inside the FR is occupied by a pronominal element subject to the so-called Controlled Pro Deletion rule. This rule deletes the pronoun under referential identity with the WH$_{FR}$. The derived-head account (Iatridou, Anagnostopoulou, and Izvorski 2002) accounts for the matching effect by proposing that after moving outside of the relative CP, the WH$_{FR}$ projects, thus explaining the fact that it must meet the category and case requirements of the matrix verb in addition to those of the embedded verb. Finally, under the Comp account (Groos and Van Riemsdijk 1981), the matching effect is achieved by the Comp accessibility parameter, according to which when the external head is null, as illustrated in (2), the selectional requirements of the matrix verb may be satisfied by the element in Spec,CP.

However, all these ways of accounting for the matching effect have met with criticism (Izvorski 2000, Bury 2003, Chomsky 2004, Van Riemsdijk 2006). In the external-head account, the deletion rule that is constrained by islands seems unprincipled, or at least unprecedented. The same is true of the projection of the moved element, proposed by the derived-head account. Similarly, the Comp accessibility parameter has been criticized as unprincipled even by its original proponents (Van Riemsdijk 2006).

In this article, I do not aim to account for the matching effect. My sole purpose is to argue for a particular structure for FRs in a particular language. It follows that the mechanism responsible for the matching effect in this language will have to operate on this structure.

I argue that the Comp account is the correct analysis of Croatian FRs. I use two tests to determine the structure of FRs in Croatian: reconstruction and clitic placement. With respect to each test, I compare FRs with both headed relatives (HRs) and questions. I show that in Croatian, FRs pattern consistently with interrogative CPs, and not with HRs.[4]

The reconstruction tests, presented in section 2, show that the $WH_{FR}$ in Croatian is obligatorily interpreted in a position *internal to the FR*. This constitutes evidence that the $WH_{FR}$ raises from within the relative clause and is not base-generated in its surface position, thus excluding the analysis in (a) of table 1, the external-head account.

The evidence from reconstruction facts is compatible with either (b) of table 1, the derived-head account, or (d), the Comp account. In Croatian, second-position clitics can be used to decide between the two approaches. It turns out that in Croatian, the $WH_{FR}$ is no higher than Spec,CP of the FR. This eliminates the derived-head account as a possible analysis of Croatian FRs. I conclude that the Comp account is the correct analysis of FRs in Croatian.[5]

We will see that with respect to both tests, HRs behave differently from FRs. Evidence from reconstruction and clitic placement argues for an analysis of HRs comparable to the one in (a) of table 1. In Croatian HRs, the head NP seems to be externally merged in a position outside the relative clause that modifies it.

## 2 Free Relatives, Headed Relatives, Questions: Evidence from Reconstruction

Croatian has a subject-oriented possessive anaphor *svoj* 'self's', which stands in complementary distribution with the possessive pronouns. The anaphor must be bound by a subject antecedent within the same clause ((6), (8)). The nonreflexive possessive pronoun, on the other hand, can only be bound outside its local domain ((7), (9)).

(6) Roditelji$_i$ vole *svoju$_{i/*j}$* djecu.
    parents   love  self's   children
    'Parents$_i$ love their$_{i/*j}$ children.'

(7) Roditelji$_i$ vole *njihovu$_{j/*i}$* djecu.
    parents   love  their     children
    'Parents$_i$ love their$_{j/*i}$ children.'

(8) Vid$_i$ tvrdi  da  Dan$_j$ voli  *svoju$_{j/*i}$*  djecu.
    Vid  claims that Dan loves self's   children
    'Vid$_i$ claims that Dan$_j$ loves his$_{j/*i}$ children.'

(9) Vid$_i$ tvrdi   da  Dan$_j$ voli  *njegovu$_{i/k/*j}$* djecu.
    Vid  claims that Dan loves his       children
    'Vid$_i$ claims that Dan$_j$ loves his$_{i/k/*j}$ children.'

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[4] For simplicity, I use the term *HR* to refer to the head NP modified by a relative clause.

[5] Evidence presented in the article also argues against analyses along the lines proposed in Caponigro 2002, which place the $WH_{FR}$ in Spec,DP of a silent $D^0$ to which the FR is a complement.

## 2.1 Reconstruction in Free Relatives

If *svoj* appears inside the nominal restriction of the $WH_{FR}$, it must be bound by the subject of the FR, and not by the matrix subject (10).[6]

(10) Vid$_i$ će   nagraditi koje   god  *svoje$_{j/*i}$* dijete Dan$_j$ preporuči.
Vid will reward   which ever self's   child Dan recommends
'Vid$_i$ will reward whichever of his$_{j/*i}$ children Dan$_j$ recommends.'

If, by contrast, the nominal restriction of the $WH_{FR}$ contains a possessive pronoun, it cannot be bound by the subject of the FR, as shown in (11).

(11) Vid$_i$ će   nagraditi koje   god  *njegovo$_{i/k/*j}$* dijete Dan$_j$ preporuči.
Vid will reward   which ever his        child Dan  recommends
'Vid$_i$ will reward whichever of his$_{i/k/*j}$ children Dan$_j$ recommends.'

Finally, if the $WH_{FR}$ is the subject of an FR, it can only contain a possessive pronoun, since an anaphor in this configuration always lacks a local subject antecedent (12).[7]

(12) Hana$_i$ će   prodati koje   god  *njezine$_{i/j}$/*svoje* slike     postignu najbolju cijenu.
Hana will sell     which ever her/self's      pictures reach    best      price
'Hana$_i$ will sell whichever of her$_{i/j}$ pictures fetch(es) the best price.'

These data suggest that the $WH_{FR}$ obligatorily reconstructs into its base position.

That the $WH_{FR}$ must reconstruct is also shown by the ungrammaticality of examples where the reconstruction of the *wh*-phrase induces a Condition C violation.

(13) *Vid će   nagraditi [$_{FR}$ koju   god  Danovu$_j$ djecu    on$_j$ preporuči].
Vid will reward        which ever Dan's    children he recommends
'Vid will reward whichever of Dan's$_j$ children he$_j$ recommends.'

The generalization that the $WH_{FR}$ must reconstruct into its original position is supported by data that involve variable binding. In (14), the pronoun *njezino* 'her' contained within the $WH_{FR}$ can be bound by the quantifier inside the subject of the embedded clause, *nijedna majka* 'no mother'. This indicates that at LF the quantifier has wider scope than the *wh*-phrase. Given the clause-boundedness of quantifier raising (QR), the observed scope relations can be obtained only by reconstruction of the $WH_{FR}$, and not by QR of the quantifier.

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[6] Following the orthographic conventions of Croatian, I write the $WH_{FR}$ that contains *god* 'ever' as two words. This representation does not necessarily coincide with the prosodic status of such a complex $WH_{FR}$. See footnote 17 and the appendix for further relevant considerations.

[7] In Croatian, an anaphor contained in the subject of an embedded declarative clause cannot be bound by the matrix subject either, as illustrated in (i).

(i) *Vid je   mislio [$_{CP}$ da  su  svoje slike    na rasprodaji].
Vid AUX thought     that are self's pictures on sale
'Vid thought that pictures of himself were on sale.'

In English, however, this is possible.

(ii) John$_i$ thought [$_{CP}$ that pictures of himself$_i$ were on sale].

(14) Vid će   nagraditi [$_{FR}$ koje   god njezino$_{i/k}$ dijete Dan misli  [$_{CP}$ da  [nijedna
     Vid will reward         which ever her        child Dan thinks        that none
     majka]$_i$ ne  vjeruje [$_{CP}$ da   treba   nagraditi]]].
     mother NEG believes       that should reward
     'Vid will reward whichever of her$_{i/k}$ children Dan thinks [no mother]$_i$ believes should
     be rewarded.'

Backward variable binding is normally not allowed, as shown by (15).

(15) *Njegova$_i$ majka  misli  da  [nijedan dječak]$_i$ nije   najbolji.
      his        mother thinks that none     boy       is.not best
      *'His$_i$ mother thinks that [no boy]$_i$ is the best.'

   Finally, reconstruction in FRs can be demonstrated by the interpretation of idiom chunks.
In (16), an idiom reading of the sentence is available. Under the hypothesis that idiom meaning
comes about only if the idiom chunks form a constituent at deep structure (Marantz 1984), the
availability of an idiom reading in (16) argues that the WH$_{FR}$ at one point formed a constituent
with the verb and that it has come to occupy its surface position through movement.

 (16) Vida će  se  dojmiti kakav    god bostan     Dan obere.
      Vid  will REFL impress what.kind ever melon.field Dan picks
      'Vid will be impressed by however severe punishment Dan receives.'

   The reconstruction facts presented here show that in Croatian FRs, the *wh*-phrase reconstructs
into an FR-internal position. This is evidence that the WH$_{FR}$ is not externally merged in its surface
position, but raises from within the relative clause.

## 2.2 Reconstruction in Headed Relatives

The binding facts in HRs are exactly the opposite of those in FRs. If *svoj* appears inside the NP
that heads the relative clause, as in (17), it must be bound by the matrix subject (*Vid* in (17)),
and not by the subject of the relative clause (*Dan*).

 (17) Vid$_i$ će   nagraditi ono *svoje$_{i/*j}$* dijete koje   Dan$_j$ preporuči.
      Vid will reward    that self's   child which Dan recommends
      'Vid$_i$ will reward the one of his$_{i/*j}$ children that Dan recommends.'

   The impossibility of binding between the embedded subject, *Dan*, and the anaphor *svoj* in
(17) indicates that the head of the relative clause, *ono svoje dijete* 'the one of his children' cannot
reconstruct into the relative clause. Moreover, the fact that (17) is grammatical (i.e., that the
anaphor *is* bound by the matrix subject) shows that the matrix subject and the anaphor belong to
the same local domain.

   If the NP that heads an HR contains a possessive pronoun, the situation is different: the
pronoun may be coreferential with the embedded subject, but not with the matrix subject. This
is shown in (18).

(18) Vid$_i$ će   nagraditi ono *njegovo$_{j/k/*i}$* dijete koje   Dan$_j$ preporuči.
 Vid  will reward   that his           child  which Dan  recommends
 'Vid$_i$ will reward the one of his$_{j/k/*i}$ children that Dan$_j$ recommends.'

Again, reconstruction of the head NP into the relative clause is impossible. The head NP and the matrix subject seem to belong to the same clause.

As illustrated in (19), HRs do not display Condition C violations when the head NP contains an R-expression coindexed with a pronoun inside the relative clause.

(19) Vid$_i$ će   nagraditi [$_{NP}$ onu  Danovu$_j$ djecu  [$_{CP}$ koju   on$_j$ preporuči]].
 Vid  will reward        those Dan's   children      which  he  recommends
 'Vid$_i$ will reward those of Dan's$_j$ children that he$_j$ recommends.'

In (19), the head NP, *onu Danovu djecu* 'those of Dan's children', does not reconstruct into the position where it is c-commanded by the coindexed pronoun *on* 'he'.

If, on the other hand, a relative clause that modifies an NP is introduced by a complex *wh*-phrase, this *wh*-phrase does reconstruct, as illustrated by the fact that (on the relevant reading) (20) violates Condition C.

(20) Vid$_i$ će  nagraditi [$_{NP}$ onu  djecu  [$_{CP}$ čije   priče  o     Danu$_j$ on$_{i/k/*j}$
 Vid  will reward        those children      whose  stories about Dan   he
 preporuči]].
 recommends
 'Vid$_i$ will reward those children whose stories about Dan$_j$ he$_{i/k/*j}$ recommends.'

The inability of the head NP to reconstruct into the relative clause is also confirmed by the data from variable binding. In (21), the pronoun inside the head NP cannot be bound by the quantified subject of the relative clause, indicating that the NP, *ono njezino dijete* 'the one of her children', does not reconstruct to a position where it is c-commanded by the quantifier.

(21) Vid će   odabrati ono njezino$_{j/*i}$ dijete koje   [nijedna majka]$_i$ ne  misli da   treba
 Vid will choose   that her         child  which none   mother NEG thinks that should
 odabrati.
 choose
 'Vid will choose the one of her$_{j/*i}$ children that [no mother]$_i$ thinks should be chosen.'

Also, if the head NP contains an idiom chunk, as in (22), the idiom reading is not available. This shows that at no level does the head NP form a constituent with the verb of the HR.

(22) Vida će  se   dojmiti bostan       kakav    Dan obere.
 Vid   will REFL impress melon.field what.kind Dan picks
 'Vid will be impressed by the kind of melon field that Dan picks.'
 #'Vid will be impressed by the severe punishment Dan receives.'

The reconstruction data presented here indicate that in HRs, the head NP does not reconstruct into the relative clause. This provides evidence that the head NP in an HR is externally merged

in its surface position.[8] Croatian HRs thus differ from HRs in languages like English and French, where the head NP of an HR can, for the purposes of variable and anaphor binding, be interpreted CP-internally.[9]

The data presented in this section suggest that in Croatian, FRs and HRs (except perhaps degree relatives) have different syntax. While the $WH_{FR}$ raises from inside an FR, the head NP in an HR seems to be externally merged in its surface position. In the following section, I discuss binding possibilities in interrogative CPs.

## 2.3 Reconstruction in Questions

In Croatian, an anaphor contained within the *wh*-phrase of a *wh*-question ($WH_Q$) is obligatorily interpreted in its base position. In (23), the pictures can only be Dan's pictures, not Vid's.[10] Moreover, the anaphor cannot be bound by the subject of the matrix clause, *Ivan*.[11]

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[8] The facts are more complicated than what is presented in the main text, where I argue that binding relations in (17), (18), (19), and (21) show that reconstruction is impossible for HRs. Data like (i) show that in certain cases, reconstruction of the head NP is possible; however, it is possible only for HRs denoting degrees, as shown by the contrast between (i) and (ii) (see Carlson 1977, Heim 1987, and Grosu and Landman 1998 for discussion of degree relatives).

  (i)  Količina svog$_i$   novca   koju Hana$_i$ ima u banci iznosi   sto   dolara.
      amount  self's.GEN money.GEN which Hana has in bank amounts.to hundred dollars
      'The amount of her$_i$ money that Hana$_i$ has in the bank amounts to \$100.'

  (ii)  \*Slika svog$_i$   djeteta   koju Hana$_i$ ima na stolu je prekrasna.
       picture self's.GEN child.GEN which Hana has on desk is beautiful
       'The picture of her$_i$ child that Hana$_i$ has on the desk is beautiful.'

Even in degree relatives, reconstruction is restricted to environments where there exists no higher binder, as the contrast between (i) and (iii) shows.

  (iii)  Dan$_i$ je   obračunao količinu svog$_{i/*j}$ novca koji   Hana$_j$ ima u banci.
       Dan AUX calculated amount self's   money which Hana has in bank
       'Dan calculated the amount of his/\*her money that Hana has in the bank.'

It is possible that reconstruction of the head NP in an HR is restricted to equative sentences, regardless of the presence of a higher binder. I leave this issue for further research. For the purposes of this article, the important comparison involves those examples of FRs and HRs where neither denotes a degree and a higher binder is available in both constructions, yet they display different binding possibilities.

[9] The crosslinguistic and language-internal variation in the behavior of HRs with respect to reconstruction allows for a spectrum of possible analyses of HRs that is analogous to the analyses of FRs presented in table 1. For Montague (1974), Partee (1975), Chomsky (1977), and Jackendoff (1977), among others, the external-head account (analogous to (a) of table 1) is the correct analysis of HRs. Brame (1968), Schachter (1973), Vergnaud (1974), Åfarli (1994), Safir (1999), Hornstein (2000), and Bhatt (2002), among others, propose a derived-head (raising) account of HRs ((b) of table 1) for languages such as English and French, where the head NP can raise from within the relative clause. Finally, an analysis of HRs analogous to the Comp account of FRs ((c) of table 1) has been proposed by Kayne (1994). Carlson (1977), Heim (1987), Grosu and Landman (1998), Sauerland (1998, 2002), and Hulsey and Sauerland (2006) suggest that, at least in English, HRs are in fact ambiguous between two derivations: the one captured by the external-head (matching) account and the one captured by the derived-head (raising) account.

[10] (23) contrasts with its English counterpart in (i): in Croatian, reconstruction into the base position is required, while in English, it is optional. No reconstruction or reconstruction into an intermediate position is sufficient. In (i), the pictures may belong to Bob, John, or Bill.

  (i)  Bob$_i$ doesn't know which pictures of himself$_{i/j/k}$ John$_j$ thought Bill$_k$ liked.

[11] The total-reconstruction requirement also holds for Croatian FRs. I am grateful to an anonymous reviewer for pointing out the importance of this parallel.

  (i)  Hana$_i$ će   prodati koje   god svoje slike$_{k/*i/*j}$ Vid$_j$ kaže da je   Ivan$_k$ poslao.
      Hana will sell     which ever self's pictures   Vid says that AUX Ivan sent
      'Hana$_i$ will sell whichever pictures of himself$_{k/*i/*j}$ Vid$_j$ says that Ivan$_k$ sent.'

(23) Ivan$_k$ ne zna  koje je *svoje$_{j/*i/*k}$* slike  Vid$_i$ mislio da je  Dan$_j$ poslao na
     Ivan  not know which AUX self's   pictures Vid thought that AUX Dan sent   on
     natječaj.
     contest
     'Ivan$_k$ doesn't know which pictures of himself$_{j/*i/*k}$ Vid$_i$ thought Dan$_j$ sent to the con-
     test.'

A fronted *wh*-phrase that contains a name coindexed with a pronoun that appears lower in
the structure is also obligatorily interpreted in its base position. (24) is ruled out as a Condition
C violation.

(24) *Koje je  Danove$_i$ slike   on$_i$ poslao na natječaj?
      which AUX Dan's   pictures he sent    on contest
      *'Which of Dan's$_i$ pictures did he$_i$ send to the contest?'

Finally, the variable contained inside the WH$_Q$, *njezine* 'her', can be bound by the quantified
phrase *nijedna slikarica* 'no painter'.

(25) Koje njezine$_{i/j}$ slike   Dan tvrdi da [nijedna slikarica]$_i$ ne vjeruje da je
     which her       pictures Dan claims that none   painter   NEG believes that AUX
     Vid poslao na natječaj?
     Vid sent    on contest
     'Which of her$_{i/j}$ pictures does Dan claim that [no painter]$_i$ believes that Vid sent to the
     contest?'

In Croatian, the WH$_Q$ and the head NP in an HR display opposite behavior with respect to
binding. While the WH$_Q$ must reconstruct into its base position, the head NP in an HR does not
display reconstruction effects (putting aside degree relatives, discussed in footnote 8). We saw
that FRs pattern with questions, in that the WH$_{FR}$ also must be interpreted in the FR-internal
position. Therefore, we can conclude that the WH$_{FR}$ is not externally merged in its surface position,
but raises from inside the relative clause. However, we cannot yet draw any conclusions about
how high it raises. Does it move only as high as Spec,CP, as in (26)? Or does it move further,
to occupy a CP-external position, as in (27)?

(26) [$_{CP}$ *wh*-phrase$_i$ . . . t$_i$ . . . ]$^{12}$

(27) [$_{NP}$[$_{N'}$ *wh*-phrase$_i$ [$_{CP}$ t$_i'$ . . . t$_i$ . . . ]]]

In the next section, evidence from clitic placement will show that the representation in (26)
is correct for Croatian FRs. That is, the WH$_{FR}$ can be shown not to leave the FR.

## 3 Free Relatives, Headed Relatives, Questions: Evidence from Clitic Placement

In Croatian, clitics are second-position elements. They always follow the first position in their
domain (for discussion, see Zec and Inkelas 1990, Ćavar and Wilder 1994, Franks and Progovac

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$^{12}$ The CP might be adjoined to a null head, as in (2).

1994, Schütze 1994, Franks 2000, Bošković 2001). The relevant domain is the minimal tensed CP in which the clitics were originally merged, as shown in (28). Clitics cannot raise from a tensed clause, as shown by the ungrammaticality of (29).[13] Clitic movement thus diagnoses the CP-hood of a phrase.[14]

(28) Hana misli [$_{CP}$ da  *će  ga*     Dan udariti].
     Hana thinks     that will him.ACC Dan hit
     'Hana thinks that Dan will hit him.'

(29) *Hana *će*$_i$  *ga*$_j$     misli [$_{CP}$ da t$_i$ t$_j$ Dan udariti].
      Hana will him.ACC thinks     that     Dan hit

In the following paragraphs, I first examine FRs, HRs, and questions with respect to the placement of clitics merged in the relative clause. I then discuss the placement of clitics merged in the matrix clause. Both the ''downstairs'' and the ''upstairs'' clitics indicate that the WH$_Q$ in questions occupies a position different from the position of the head NP in an HR: not surprisingly, the WH$_Q$ occupies an edge position of the CP, while the head NP of an HR occupies a position external to the relative CP. FRs contrast with HRs and pattern with *wh*-questions, indicating once again that FRs and *wh*-questions share the same syntax.

## 3.1 Clitics Originating in the Relative Clause

### 3.1.1 Clitics Originating in the Relative Clause and Free Relatives
In an FR introduced by 'which' + *NP*, clitics can appear either after the *wh*-word + *god* 'ever', as in (30), or after the whole *wh*-phrase, as in (31).[15]

(30) Vid kupuje [$_{FR}$[$_{DP}$ koji   god *mu*    *je*   sat]  Dan preporučio].
     Vid buys          which ever him.DAT AUX watch Dan recommended
     'Vid buys whichever watch Dan recommended to him.'

(31) Vid kupuje [$_{FR}$[$_{DP}$ koji   god sat]  *mu*    *je*   Dan preporučio].
     Vid buys          which ever watch him.DAT AUX Dan recommended

This is, in fact, not surprising. For purposes of clitic placement in Croatian, what counts as the first position is either the first syntactic constituent (unless it is very heavy) or the first prosodic

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[13] It is possible for clitics to raise from an infinitival clause.

(i) Hana *ga*$_i$     želi   [udariti t$_i$].
   Hana him.ACC wants  hit.INF
   'Hana wants to hit him.'

[14] According to Bošković (2001), second-position clitics in Serbo-Croatian are constrained by prosody, and not by syntax. Bošković argues that clitics must occupy the second position in an intonational phrase, not in the clause. To exclude prosody effects, the WH$_{FRS}$ and head NPs of HRs are matched for ''heaviness'' throughout section 3. It is unlikely that HRs, but not FRs of the same heaviness, form separate intonational phrases, thus causing a difference in clitic placement. This indicates that, while prosody may play a part in the placement of clitics, the syntactic makeup of the phrase must be taken into account.

[15] The auxiliary clitic *je* is a second-position clitic in Croatian.

word (PW) (Browne 1975). If the first PW in the clause is part of a bigger syntactic constituent, clitic(s) can split the constituent. This is illustrated in (32).[16]

(32) [Ova    *mu*    *je*   mala     djevojčica] pokazala put.
     this.NOM him.DAT AUX little.NOM girl.NOM    showed  way
     'This little girl showed him the way.'

In (30) and (31), *koji god* 'whichever' is the first PW, while *koji god sat* 'whichever watch' is the first syntactic constituent of the relative clause. As expected, both can successfully host clausemate clitics. (For an alternative explanation of clitic placement, see the appendix.)

   The clitics can also precede *god* 'ever', as in (33).[17]

(33) Vid kupuje [FR[DP koji    *mu*     *je*   god sat]  Dan preporučio].
     Vid buys           which him.DAT AUX ever watch Dan recommended
     'Vid buys whichever watch Dan recommended to him.'

(30), (31), and (33) all contrast with (34), where the second position is computed without taking the WH_FR into account.

(34) *Vid kupuje [FR[DP koji    god sat]  Dan *mu*     *je*   preporučio].
     Vid buys            which ever watch Dan him.DAT AUX recommended

This contrast shows that the WH_FR forms part of the domain in which clitics must occupy the second position. Since clitic movement is diagnostic of CP-hood, the WH_FR must occupy a position

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[16] If the first constituent in a sentence is heavy, it is preferred that clitics not follow that constituent (''clitic second''), as in (i), but instead follow the next constituent/word (''clitic third''), as in (ii).

   (i) [Ova mala     djevojčica] *mu*     *je*   pokazala put.
       this little.NOM girl.NOM     him.DAT AUX showed   way
       'This little girl showed him the way.'
   (ii) [Ova mala     djevojčica] pokazala *mu*     *je*   put.
        this little.NOM girl.NOM     showed   him.DAT AUX way

The ''clitic third'' preference holds regardless of whether the subject is a heavy DP, a declarative CP, an FR, or an HR, and thus does not influence the relevant contrasts shown in the following paragraphs in the text. In all these cases, the ''clitic second'' option is not ungrammatical, just dispreferred. (I am grateful to an anonymous reviewer for pointing out the importance of the grammaticality of (i).)

   However, the ''clitic third'' preference is not permissible if the first constituent is a heavy *wh*-phrase. Thus, (iii) is ungrammatical.

   (iii) *[Koja mala     djevojčica] pokazala *mu*     *je*   put?
         which little.NOM girl.NOM     showed   him.DAT AUX way
         'Which little girl showed him the way?'

At the moment, it is not clear to me why the contrast between (ii) and (iii) obtains. I leave this question for further research.

   [17] The fact that clitics can equally felicitously follow either the bare *wh*-word or *god* might indicate that *wh + god* '*wh* + ever' is ambiguous between one PW and two. However, as an anonymous reviewer points out, no independent evidence for this claim seems to be available. Alternatively, this distribution of clitics might indicate that clitics can target either the first PW or the first morphological word. In most cases, the two coincide, but *wh + god* is a case where they come apart. For reasons of space, in this article I do not discuss FRs introduced by a bare *wh*-word (without the nominal restriction) or FRs without *god*. In the former, clitics originating in the relative CP can also either follow or precede *god*, while in the latter, they always follow the *wh*-word.

*inside* the CP to which the clitics thematically belong. This places the $WH_{FR}$ in Spec,CP of the relative clause. An additional piece of evidence supporting this conclusion comes from the fact that (34) patterns with (iii) in footnote 16, in that in neither case can clitics occupy the third position in their domain, even though the first constituent is heavy. This is true when the first constituent is a fronted *wh*-phrase, but not when it occupies, say, the subject position (see the contrast between (ii) and (iii) in footnote 16).

*3.1.2 Clitics Originating in the Relative Clause and Headed Relatives*    In an HR, the clitics that originate inside the relative clause follow the relative operator in the specifier of the relative CP, as shown in (35). They cannot follow the nominal head of the relative clause, as shown in (36).

(35) Vid kupuje [$_{NP}$ Sonyjev sat    [$_{CP}$ koji    *mu*        *je*      Dan preporučio]].
      Vid buys        Sony's watch        which him.DAT AUX Dan recommended
      'Vid buys the Sony watch that Dan recommended to him.'

(36) *Vid kupuje [$_{NP}$ Sonyjev sat      *mu*      *je*    [$_{CP}$ koji    Dan preporučio]].
      Vid buys        Sony's  watch him.DAT AUX      which Dan recommended

The contrasts between (30)/(31) and (36) on the one hand and between (34) and (35) on the other show that the head NP in an HR does not occupy the same position as the $WH_{FR}$.[18] The head NP of an HR appears to be outside the relative clause.[19]

*3.1.3 Clitics in Embedded Questions*    If an embedded question contains clitics, they follow either the whole $WH_Q$, as in (37), or the first PW in the $WH_Q$, as in (38). (See the appendix for an alternative approach to clitic placement.)

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[18] Even though clitic movement in Croatian seems to be clause bound, it is worth checking that the ungrammaticality of (36) is not due to the fact that clitics do not occupy the second position in the *matrix* domain. This is shown by (i). In (i), clitics occupy the second position of the matrix domain, but the sentence is still ungrammatical.

(i) *Vid *mu$_i$*    *je$_j$* kupuje [$_{NP}$ Sonyjev sat    [$_{CP}$ koji    t$_i$ t$_j$ Dan preporučio]].
      Vid him.DAT AUX buys        Sony's watch      which      Dan recommended

[19] An anonymous reviewer suggests an analysis in which the $WH_{FR}$ moves to Spec,CP and then the *wh*-element *alone* raises out of CP. The reconstruction effects observed in section 2 are thus accounted for by the reconstruction of *only the restrictor part* of the *wh*-phrase. The reviewer suggests that this analysis also explains the clitic placement in the FRs in (30), (31), and (33). He or she proposes the following structures for the relevant examples:

(i) Vid kupuje [koji  [$_{CP}$ god *mu*    *je*   sat    Dan preporučio]].                    (cf. (30))
      Vid buys    which    ever him.DAT AUX watch Dan recommended

(ii) Vid kupuje [koji  [$_{CP}$ god sat    *mu*    *je*   Dan preporučio]].                    (cf. (31))
      Vid buys    which    ever watch him.DAT AUX Dan recommended

(iii) Vid kupuje [koji  [$_{CP}$ *mu*    *je*   god sat]    Dan preporučio]].                  (cf. (33))
      Vid buys    which    him.DAT AUX ever watch Dan recommended

The reviewer proposes that (36), where the head NP in the HR *cannot* host clitics, would not pose a problem for this analysis, in particular for (iii), if it is stipulated that an overt *wh*-element, if present, *must* serve as the host for the clitics. As the reviewer suggests, infinitival and reduced relative clauses, where the head NP is external to the CP, but an overt *wh*-element is absent, can be used to check whether, in the absence of a *wh*-element, the head NP can indeed host clitics. If the analysis proposed by the reviewer is correct, then in those cases the head NP *should* be able to host the clitics. This prediction is not borne out, however. In Croatian infinitival and reduced relatives, the head NP cannot host clitics.

(37) Vid ne zna    [CP [čiji   sat]  *mu*    *je*   Hana pokazala].
     Vid not knows      whose watch him.DAT AUX Hana showed
     'Vid doesn't know whose watch Hana showed to him.'

(38) Vid ne zna    [CP [čiji   *mu*    *je*   sat]   Hana pokazala].
     Vid not knows      whose him.DAT AUX watch Hana showed

If the second position is calculated without taking the WH$_Q$ into account, the sentence is ungrammatical. This is shown in (39). See also (iii) in footnote 16.

(39) *Vid ne zna    [CP [čiji   sat]  Hana *mu*    *je*   pokazala].
      Vid not knows      whose watch Hana him.DAT AUX showed

In (28) and (29), we saw that clitic movement in Croatian is clause bound. The contrast between FRs and HRs regarding the placement of clitics originating in the relative clause indicates that the head NP of an HR is not inside the relative CP, while the WH$_{FR}$ is. This is further corroborated by the fact that the WH$_{FR}$ behaves like the WH$_Q$ with respect to clitic placement. We can conclude, then, that the WH$_{FR}$ not only originates inside the embedded CP, but also remains within it.

### 3.2 Clitics Originating in the Matrix Clause

So far, the discussion has concerned the placement of clitics that originate in FRs/HRs/embedded questions. I now proceed to examine the placement of clitics that originate in the matrix clause. I will show that these also behave differently with respect to FRs and questions on the one hand and HRs on the other. It is necessary to look at FRs/HRs/questions that appear at the beginning of the sentence, since only these provide a potentially suitable position for the matrix second-

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Rather, clitics follow the first constituent in the relative clause. This is illustrated in (iv)–(v). (Note that a prepositional phrase can never be split by clitics.)

(iv) a. *Infinitival relative clause*
        čovjek [za upoznati *ga*      s      roditeljima]
        man    for introduce him.ACC with parents
        'a man to introduce to one's parents'
     b. *čovjek [*ga*      za upoznati s      roditeljima]
        man     him.ACC for introduce with parents

(v) a. *Reduced relative clause*
       medalja [dodijeljena *mu*     za pobjedu]
       medal   awarded     him.DAT for win
       'a medal awarded to him for winning'
    b. *medalja [*mu*      dodijeljena za pobjedu]
       medal   him.DAT awarded     for win

Given the data from infinitival and reduced relatives, I conclude that the *wh*-part of the WH$_{FR}$ does not leave CP, as the reviewer suggests. The discussion, in fact, supports the analysis I propose, since it shows that even when the *wh*-element is not present, the head NP in an HR *cannot* host clitics. The reviewer might be correct in proposing that only the nominal restriction of the WH$_{FR}$ reconstructs into its base position. This is, I believe, compatible with the Comp account of FRs.

position clitics. Here, I examine FRs/HRs/questions that occupy the subject position of the matrix clause.[20]

*3.2.1 Clitics Originating in the Matrix Clause in Free Relatives and Questions*   Clitics that thematically belong to the matrix clause are banned from occurring inside an FR that is the subject of the sentence.

(40) [$_{FR}$ Tko god laže] nanio   *mu*     *je*   uvredu.
        who ever lies   brought him.DAT AUX offense
     'Whoever lies offended him.'

(41) *[$_{FR}$ Tko god *mu$_i$*     *je$_j$* laže] nanio   t$_i$ t$_j$ uvredu.
        who ever him.DAT AUX lies   brought     offense

The same distribution of clitics holds of an interrogative CP, when it is the subject of the sentence.[21]

(42) [$_{CP}$ Gdje   Dan živi] nepoznato *mu*     *je*.
        where Dan lives unknown   him.DAT AUX
     'Where Dan lives is unknown to him.'

(43) *[$_{CP}$ Gdje *mu$_i$*     *je$_j$*   Dan živi] nepoznato t$_i$ t$_j$.
        where him.DAT AUX Dan lives unknown

   Examples (42) and (43) show that a clitic cannot be placed inside a CP to which it thematically does not belong, even when the CP belongs to the domain within which clitics are allowed to raise—in this case, when it is the subject of the matrix clause. An FR in the subject position patterns with bona fide CPs, in that it is impenetrable to matrix clitics. This indicates that an FR also has the structure of a CP. The WH$_{FR}$ therefore must occupy a position *internal* to the CP,

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[20] The same argument can be made using examples in which the fronted FR/HR/question is a topicalized/scrambled object of the matrix clause.

[21] Similar judgments obtain when matrix clitics are placed inside a declarative CP that is the subject of the sentence.

  (i) [[$_{CP}$ Da  Dan ide] nanijelo *mu*     *je*   uvredu].
        that Dan goes brought him.DAT AUX offense
      'That Dan is leaving offended him.'

 (ii) *[[$_{CP}$ Da  *mu$_i$*     *je$_j$*  Dan ide] nanijelo t$_i$ t$_j$ uvredu].
        that him.DAT AUX Dan goes brought         offense

In (ii), the matrix clitics occupy the second position in the matrix domain, but the sentence is ungrammatical nonetheless.
   Note that (iii)–(v) are not ungrammatical, just dispreferred. This indicates that the FR indeed occupies what counts as the first position in the clause. See also footnote 16.

 (iii) [$_{FR}$ Tko god laže] *mu*     *je*   nanio   uvredu.
        who ever lies   him.DAT AUX brought offense
      'Whoever lies offended him.'

 (iv) [$_{CP}$ Gdje   Dan živi] *mu*     *je*   nepoznato.
        where Dan lives him.DAT AUX unknown
      'Where Dan lives is unknown to him.'

 (v) [[$_{CP}$ Da  Dan ide] *mu*     *je*   nanijelo uvredu].
        that Dan goes him.DAT AUX brought offense
      'That Dan is leaving offended him.'

which indicates that it has not moved out of it and that no projection of the WH$_{FR}$ has occurred.[22] I conclude that the WH$_{FR}$ occupies Spec,CP.

*3.2.2 Clitics Originating in the Matrix Clause and Headed Relatives*   When the subject of a clause is an HR ((44)–(47)), the judgments are reversed. Clitics that thematically belong to the matrix clause can freely follow the first PW of the HR, whether it is a noun (45), a determiner (46), or an adjective (47). This behavior is analogous to that of noncomplex DPs, which we saw in (32).[23]

(44)   [$_{NP}$ Čovjek [$_{CP}$ koji   laže]] nanio   *mu*      *je*   uvredu.[24]
             man           which lies   brought him.DAT AUX offense
        'A/The man who lies offended him.'

(45)   [$_{NP}$ Čovjek *mu$_i$*      *je$_j$* [$_{CP}$ koji   laže]] nanio   t$_i$ t$_j$ uvredu.
             man      him.DAT AUX        which lies   brought        offense

(46)   [$_{DP}$ Ovaj *mu$_i$*      *je$_j$* čovjek [$_{CP}$ koji   laže]] nanio   t$_i$ t$_j$ uvredu.
             this  him.DAT AUX man           which lies   brought        offense
        'This man who lies offended him.'

(47)   [$_{DP}$ Visok *mu$_i$*      *je$_j$* čovjek [$_{CP}$ koji   laže]] nanio   t$_i$ t$_j$ uvredu.
             tall  him.DAT AUX man           which lies   brought        offense
        'The tall man who lies offended him.'

The head NP of the subject phrase is accessible to the clitics of the matrix clause, while the WH$_{FR}$ is not. If we keep in mind the fact that clitics diagnose the CP status of a constituent, this argues that the head NP of an HR is not inside the relative CP, while the *wh*-phrase of an FR is. Thus, FRs in Croatian cannot be captured by the derived-head account, since it places the WH$_{FR}$ in a position outside the FR. Instead, the Croatian facts are best explained by the Comp account of FRs.

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[22] Thus, move-and-project analyses, as proposed by Larson (1998), Iatridou, Anagnostopoulou, and Izvorski (2002), Cable (2005), and Donati (2006), although they can elegantly account for the matching effects, cannot be the right account of Croatian FRs.

[23] The head NP in (44) and (45), *čovjek koji laže* 'the man who lies', is somewhat heavier than the WH$_{FR}$ in (40) and (41), *tko god laže* 'whoever lies'. To rule out possible effects of prosody on the placement of clitics, I constructed the HRs in (i) and (ii) so that their head NP prosodically matches the WH$_{FR}$ in (40) and (41). Specifically, I replaced the relative operator *koji* 'which', used in (44) and (45), with the complementizer *što* 'what/that'. This manipulation does not affect the distribution of clitics.

(i)   [$_{NP}$ Pas [$_{CP}$ što   laje]] nanio   *mu*      *je*   uvredu.
            dog       what barks brought him.DAT AUX offense
       'A/The dog that barks offended him.'

(ii)  [$_{NP}$ Pas *mu$_i$*      *je$_j$* [$_{CP}$ što   laje]] nanio   t$_i$ t$_j$ uvredu.
            dog him.DAT AUX        what barks brought        offense

[24] Recall from footnote 16 that a sentence like (i) is grammatical, indicating that the subject DP does count as the constituent occupying the first position in the clause.

(i)   [$_{NP}$ Čovjek [$_{CP}$ koji   laže]] *mu*      *je*   nanio   uvredu.
            man           which lies   him.DAT AUX brought offense
       'The man who lies offended him.'

## 4 Conclusion

In this article, I used two tools to examine the structure of FRs, HRs, and questions in Croatian, namely, reconstruction effects and clitic placement. I showed that with respect to both tests, the WH$_{FR}$ patterns with the WH$_Q$. Both the WH$_{FR}$ and the WH$_Q$ obligatorily reconstruct into their base positions—evidence that they both undergo movement to the surface position. The head NP of an HR behaves as if it were externally merged in its surface position. These facts argue that the external-head account cannot be the correct analysis of Croatian FRs, while it *is* the correct analysis for the derivation of HRs.[25]

Furthermore, the placement of clitics in Croatian shows that the head of an HR is outside the relative clause (which is consistent with its being externally merged in the surface position), while the WH$_{FR}$ remains inside the FR, just like the WH$_Q$ does. The fact that the WH$_{FR}$ is CP-internal eliminates the derived-head account as a possible analysis of FRs in Croatian.[26] I conclude that the Comp account is correct for Croatian FRs.

An obvious question that arises concerns the universality of the proposed analysis. Although it might well be that the Comp account is the correct analysis for FRs in all languages, at the moment such a claim can only be made for Croatian. This is because the reconstruction data, which are available in most languages, only argue for or against the external-head account. Reconstruction facts, however, make no distinction between the derived-head account and the Comp account, in the absence of a diagnostic such as clitic placement, which indicates the exact position of the WH$_{FR}$. Croatian is thus an important source of information about the structure of FRs more generally. However, investigating whether or not the Comp account is the correct analysis of FRs universally is beyond the scope of this article.

## Appendix: The Status of *God*

As pointed out by a reviewer, the clitic placement in (30) and (33) raises an interesting question with respect to the prosodic status of *god* 'ever'. The fact that clitics can follow the *wh*-word + *god*, as in (30), implies that *god* itself is a clitic. However, if this is the case, why doesn't it have a fixed position in the clitic cluster, since in (33), pronominal clitics precede it, rather than follow

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[25] The external-head account and the matching account (Sauerland 1998, 2002) fare equally well in capturing anti-reconstruction effects in Croatian HRs. On the other hand, neither can capture the reconstruction effects observed in Croatian degree relatives.

[26] Bury (2003) proposes that the FR in (i) has the structure in (ii), where the copy of *who* in the Spec,CP is the one that is pronounced.

 (i)  I don't like who you just met.

 (ii)  I don't like [$_{DP}$[$_{DP}$ ⟨who⟩] [$_{CP}$ ⟨who⟩ you just met ⟨who⟩]]

This kind of analysis is in principle compatible with the facts presented here, as long as the copy of *who* at the bottom of the chain is the one that is interpreted. However, Bury's claim on page 171, that the restriction of the WH$_{FR}$ must be interpreted in the copy that heads the construction, because otherwise the relative clause would have no antecedent, is incompatible with the presented data. If the restriction of the WH$_{FR}$ must be interpreted FR-externally, we do not expect any reconstruction effect, contrary to fact.

it? In fact, material other than clitics may come between the *wh*-word and *god*, for example, the subject.

(48) Vid kupuje [$_{FR}$[$_{DP}$ koji   *mu*    *je*  Dan god sat]   preporučio].
     Vid buys          which him.DAT AUX Dan ever watch recommended
     'Vid buys whichever watch Dan recommended to him.'

Given that nothing may separate clitics in a clitic cluster, (48) argues against *god* being a clitic. The subject may also be inserted between *god* and the nominal restriction of the WH$_{FR}$, *sat* 'watch', as in (49).

(49) Vid kupuje [$_{FR}$[$_{DP}$ koji   *mu*    *je*  god Dan sat]   preporučio].
     Vid buys          which him.DAT AUX ever Dan watch recommended
     'Vid buys whichever watch Dan recommended to him.'

This distribution of clitics and the subject makes (30) and (33) look more like a consequence of a split constituent, which Croatian independently allows.

I propose therefore that in (48), (49), and all the previous relevant examples in the article, the complex WH$_{FR}$ *koji god sat* 'whichever watch' consists of three words: *koji*, *god*, and *sat*. Crucially, I propose that *koji* and *god* form a constituent on their own. Clitics can follow the whole constituent, *koji god sat*, as in (31); the first constituent within it, *koji god*, as in (30); and the first constituent within this constituent, *koji*, as in (33) (this placement gives the same result as placing clitics after the first PW). Such placement of clitics is observed in other splits with the same constituent structure. This is shown in (50).

(50) a. [[Koliko skupu]     *mi*    *je*  Vid kupio?
        how     expensive dress   me.DAT AUX Vid bought
        'How expensive a dress did Vid buy for me?'
     b. [[Koliko skupu]    *mi*    *je*  haljinu] Vid kupio?
        how     expensive me.DAT AUX dress     Vid bought
     c. [[Koliko *mi*     *je*  skupu]     haljinu] Vid kupio?
        how      me.DAT AUX expensive dress     Vid bought

Furthermore, the subject may be placed after the whole *wh*-phrase, as in all of the examples in (50), but it may also be placed inside it, to mirror the subject placement in the WH$_{FR}$ that we saw in (48) and (49).

(51) a. [[Koliko *mi*    *je*  Vid skupu]     haljinu] kupio?              (cf. (48))
        how     me.DAT AUX Vid expensive dress     bought
     b. [[Koliko *mi*    *je*  skupu]    Vid haljinu] kupio?              (cf. (49))
        how     me.DAT AUX expensive Vid dress     bought

The distribution of clitics in (50) and (51), as well as in FRs, can be accounted for if clitics come to occupy second position by being recursively placed after the first constituent.

The question may arise whether, if splits are derived by fronting a part of the constituent (Progovac 2005), the fronted part is still inside the CP. If it is not, the proposed analysis of FRs will be cast into doubt. However, when a constituent is split, the clitics follow its fronted part, as shown in (52), just as they follow the first constituent/PW in a bona fide CP (declarative and interrogative). Progovac (2005) suggests that the fronted part of a *wh*-split is inside the CP layer of the clause.

(52) [Koji *mu*    *je*   (Dan) sat]    (Dan) preporučio?
      which him.DAT AUX  Dan watch        recommended
      'Which watch did Dan recommend to him?'

Finally, in FRs where the WH$_{FR}$ is simplex, as in (53), and thus no splitting is involved, clitics also follow the WH$_{FR}$.

(53) Vid je    pojeo što  *mu*    *je*   Dan ponudio.
      Vid AUX eaten what him.DAT AUX  Dan offered
      'Vid ate what Dan offered him.'

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