On a Matching Effect in Headed Relative Clauses

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1.Introduction

In this paper, I discuss relative clauses (RCs) in Croatian that are introduced by the complementizer *što* 'what/that' (*što*-RCs). When the relativized element is the subject, such RCs, like the RCs introduced by a wh-pronoun (wh-RCs), normally cannot contain a resumptive pronoun (RP) in the site of relativization. By contrast, *što*-RCs in which the relativized element is the object generally require the presence of an RP. Interestingly, however, this requirement is not absolute; there are environments in which the RP is optional. I argue that the presence versus the absence of an RP reflects a difference in the derivation of the RC. In other words, object *što-RCs* that *do not* have an RP and those that *do have* an RP do not share the same syntax. The former, I argue, involve a movement strategy, while no movement is involved in the derivation of the latter. I assume that the *što*-RCs which do not contain an RP involve a matching analysis (Bhatt, 2002; Hulsey and Sauerland, 2006; Sauerland, 2002), on which the construction contains both an external head (to which the RC is adjoined) and an internal one (merged in the position of the relativization). The internal head moves to [Spec CP] of the RC, where it is obligatorily deleted under identity with the external head (by a process that Sauerland (2002) calls *relative deletion*). By contrast, *što*-RCs where an RP is present, involve an RP, externally merged in the site of relativization, which is bound by a null operator, merged directly in [Spec CP] (Lavine, 2003; Merchant, 2004).

I further present evidence that the movement strategy in the derivation of RCs in question is subject to a matching requirement: the internal head may be merged in the site of relativization and subsequently fronted only if the external head of the RC (HEAD_{RC}), case-marked by the matrix predicate, has the form that it would have if it were case-marked by the embedded predicate. I propose that the matching condition on the movement strategy of the *što*-RCs formation is a consequence of the requirement that a non-defective v^0 assign/check accusative on an overt element. This is a modified version of the Inverse

Case Filter (Bošković, 1997; 2002; Martin, 1999). It ensures that the accusative case, which v^0 of the relative clause has to assign/check, is morphologically realized (either on the RP or on the HEAD$_{RC}$). In the absence of an RP, this is only possible if the morphological form that the HEAD$_{RC}$ takes in order to satisfy the requirements of the matrix predicate is non-distinct from the accusative form, required within the RC.

The paper is organized as follows: In section 2, I introduce *što-RCs* in Croatian and show how they differ from RCs introduced by a wh-operator. In section 3, I discuss environments in which the use of an RP in object *što-RCs* is optional. Coupled with the assumptions about the syntax of RCs with and without an RP, the discussion leads to the proposal that some object *što-RCs* in Croatian can be derived by both a movement and a non-movement strategy. This section also presents sketch of an analysis of the matching requirement, which the movement strategy is a subject to. In section 4, I present further evidence for the movement/non-movement distinction in *što-RCs*. Section 5 is the conclusion.

2. Basic data

Like in English, relative clauses in Croatian may be introduced either by a wh-operator *koji/–a, –e* 'which' or by a complementizer *što* 'what/that'. The wh-operator and the complementizer are interchangeable in subject RCs, where the site of relativization in both cases must be a gap. This is shown in (1).[1]

(1) a. čovjek **koji**　　(*on)　je　　došao　　　　*Subject wh-RC*
　　　man.$_{NOM}$ which.$_{NOM}$ he.$_{NOM}$ Aux.$_{3SG}$ come
　　　'(the) man who came.'

　　b. čovjek **što** (*on)　je　　došao　　　　*Subject* što-*RC*
　　　man.$_{NOM}$ that　he.$_{NOM}$ Aux.$_{3SG}$ come
　　　'(the) man who came.'

In object RCs, the two types differ in that a *što-RC* requires the position of the relativization to be occupied by an RP. The same position in a wh-

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[1] Non-nominative subjects are sometimes exempt from this generalization. The case of genitive subjects is discussed in section 4.3.3.

RC must be a gap. The contrast is shown in (2).

(2) a. čovjek **kojeg**   sam   (*ga)   vidio   *Object wh-RC*
    man.$_{NOM}$ which.$_{ACC}$ Aux.$_{1SG}$ him.$_{ACC}$ seen
    '(the) man whom I saw.'

   b. čovjek **što** sam   *(ga)   vidio   *Object* što-*RC*
    man.$_{NOM}$ that Aux.$_{1SG}$ him.$_{ACC}$ seen
    '(the) man that I saw.'

      Croatian is certainly not unique in this respect. In many languages, RCs introduced by a complementizer involve optional resumption (Hebrew, Irish) or obligatory resumption (Palestinian Arabic). RCs in which the relativization site is occupied by an RP are commonly analyzed as not involving movement (Borer, 1984; Chomsky, 1977; McCloskey, 2002; Merchant, 2004; Safir, 1986; Shlonsky, 1992). Instead, they involve an RP, externally merged within the RC, which is related to (bound by) a null operator, externally merged in [Spec CP]. The non-movement analysis of 'resumptive RCs' receives support from examples like (3) and (4), which show that in languages like Hebrew, where RPs are optional, and even in languages like English, where RPs are normally banned from RCs, an RP is obligatory in syntactic islands – positions from which movement is not allowed.[2]

(3) ha- ʔiš   še- raʔiti   ʔet [$_{NP\ island}$ ʔišt- *(o)]   *Hebrew*
   the man that saw.1sg $_{ACC}$ wife his
   'the man whose wife I saw'   (Shlonsky, 1992: 5)

(4) the man that John wondered [$_{wh\text{-}island}$ whether Mary saw **him**]
                                        (Boeckx, 2003: 6)

      I assume that this analysis is in principle correct – I take an RP in the position of relativization to be an indication of the non-movement analysis of the RC in question. On the other hand, the absence of an RP

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[2] See Chao and Sells (1983) and Sells (1984) for a difference between true resumptive pronouns (which, according to these authors English does not have) and intrusive pronouns, which are used only as a last resort repair of an island violation.

is taken as evidence that the RC is derived through movement. As mentioned in the Introduction, I assume that what moves is the internal head of the relative clause, which is subsequently deleted under identity with HEAD_RC.

In the next section, we will see, however, that the RP in an object *što*-RC is not always obligatory. In some cases, the position of the relativization may be occupied by a gap. This will lead to a proposal that some object *što*-RCs (those without an RP) are derived through movement, while some (those with an RP) are derived through a non-movement strategy.

3. Optional resumption and the matching effect

Witness the contrast in (5) and (6) below. The RP in (5) is obligatory, while in (6), it is optional. The example in (5) represents the "standard" situation in Croatian object *što*-RCs: they require an RP. In (6), however, this requirement is relaxed: the sentence is grammatical even if the RP is absent from the relative clause.

(5) Čovjek [što sam *(ga)   vidio_acc ___] voli_nom   Ivu.
    man._**NOM** [that Aux._1SG him._**ACC** seen_acc   ___] loves_nom Iva._ACC
    'The man that I saw loves Iva.'

(6) Upoznao_acc sam   čovjeka [što (ga)   je   Iva   obožavala_acc.]
    met_acc   Aux._1SG man._**ACC** [that him._**ACC** Aux._3SG Iva._NOM adored_acc   ]
    'I met the man that Iva used to adore.'

Let us first discuss (5) and (6) at a descriptive level. In (5), the HEAD_RC is the subject of the matrix clause, while the RP is the object of the RC. The former is case-marked nominative by the matrix T^0, while the RP receives accusative (*ga* 'him') from the embedded verb *vidio* 'seen'. If the noun *čovjek* 'man' were case-marked accusative, like the RP, it would have the form *čovje**ka***. This form is not identical to the actual form of the HEAD_RC (*čovjek*), and the presence of an RP is obligatory. In (6), on the other hand, the HEAD_RC is the object of the matrix clause, and it is case-marked accusative by the matrix predicate *upoznao* 'met'. The RP also bears accusative, assigned to it by the embedded verb *obožavala* 'adored'. If the HEAD_RC were case-marked by the embedded predicate, it

would have the form *čovjeka,* which is identical to the form it actually has in (6). Consequently, the RP may be omitted.

The generalization that emerges from the contrast between (5) and (6) is that an RP in an object *što*-RC may be omitted if the head noun and the RP match in case. I refer to this phenomenon as *a matching requirement*.[3]

However, the data in (7) show that the RP may be omitted even if the HEAD_RC and the RP match in *morphological* case only. The example in (7) differs from the example in (5) only in the gender of the HEAD_RC: while in (5) the head noun is masculine (*čovjek* 'man'), in (7) it is neuter (*dijete* 'child'). Importantly, in (5) the RP is obligatory, but in (7) it is optional.

(7) Dijete   [što sam   (ga)   vidio_acc __] voli_nom   Ivu.
    child.**NOM** [that Aux.1SG him.**ACC** seen_acc   __] loves_nom Iva.ACC
    'The child that I saw loves Iva.'

This contrast can be attributed to the fact that singular neuter nouns in Croatian (like *dijete* 'child') are syncretic between nominative and accusative, while singular masculine nouns denoting animate entities (like *čovjek* 'man') are not. Thus, in (5), where the form of the HEAD_RC is morphologically different from what it would be if it were case-marked by an embedded predicate, the RP is obligatory. In (7), however, where the two forms are identical, the RP is optional. Example (7) then shows that in order for the matching requirement to be satisfied it is not necessary for the matrix and embedded predicate to assign the *same* case to the HEAD_RC and the RP respectively. The requirement is also satisfied through case syncretism.

It seems then that an RP in an object *što*-RC may be omitted under matching in case with the HEAD_RC. The observation that an RP in (Serbo-)Croatian object *što*-RCs is sometimes optional is not a new one. However, in previous approaches, the optionality of RPs has been tied to the animacy or gender features of the head noun.[4] It has been claimed

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[3] The matching requirement is commonly tied to the context of free relative clauses, and was first discussed in Grimshaw (1977).
[4] An exception is Mitrović (2009), where the optionality of an RP is also tied to case assignment, like in the present proposal. The difference between the two is

that an RP is obligatory with animate heads, while it is optional with with inanimate heads (Browne, 1986; Goodluck and Stojanović, 1996; Kordić, 1995). The data in (5) through (7) above indicate that, in fact, the appearence of an RP is independent of the animacy or gender of the head noun. Similarly, Bošković (to appear) notes that 'while the resumptive is optional with masculine and neuter objects, it is obligatory with […] feminine objects.' (pg. 9) This claim is falsified by (8) and (9) below.

(8) Želja   [što sam   *(je)   osjetio$_{acc}$__] bila$_{nom}$ je   jaka.
    desire.$_{\textbf{NOM}}$ [that Aux.$_{1SG}$ her.$_{\textbf{ACC}}$ felt$_{acc}$ __] been$_{nom}$ Aux.$_{3SG}$ strong.$_{NOM}$
    'The desire that I felt was strong.'

(9) Ljubav [što sam   (je)   osjetio$_{acc}$ __] bila$_{nom}$ je   jaka.
    love.$_{\textbf{NOM}}$ [that Aux.$_{1SG}$ her.$_{\textbf{ACC}}$ felt$_{acc}$ __] been$_{nom}$ Aux.$_{3SG}$ strong.$_{NOM}$
    'The love that I felt was strong.'

Both examples contain an object *što*-RC, whose HEAD$_{RC}$ is an inanimate feminine noun. In both sentences, the HEAD$_{RC}$, modified by the RC, is the subject of the sentence, case-marked nominative. The only difference between the two is the declension class of the two nouns: the noun *želja* 'desire' belongs to class II, while the noun *ljubav* 'love' belongs to class III (Mrazović and Vukadinović, 1990). Nouns belonging to class II do not show syncretism between nominative and accusative (the accusative form of the noun *želja* 'desire' is *želj**u***). This renders the RP in (8) obligatory. By contrast, class III nouns have the same form in nominative and accusative, which makes the RP in (9) optional. It seems then that neither animacy nor gender of the HEAD$_{RC}$ plays a role in whether an RP in a Croatian object *što*-RC is obligatory or optional. Rather, the correct characterization of the variation has to take into account the (morphological) case matching between the HEAD$_{RC}$ and the RP.

Assuming that the absence versus the presence of an RP in a RC indicates a difference between a movement and a non-movement strategy in the derivation of the RC, it appears that the RCs in (6), (7), and (9) can

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that for Mitrović, the presence versus absence of the RP does not reflect the difference in the derivation of a RC. Rather, she argues that inherent case must be spelled-out, while structural case must be checked, but may not be spelled-out. Taken together, these two conditions account for the distribution of RPs.

be derived by both.

Let us first consider how these RCs are derived when they do contain an RP, i.e. when no movement is involved.[5] The derivation is pretty straightforward. First, the RP is merged in the site of the relativization. As the derivation proceeds, a null operator is merged in [Spec CP] of the relative clause, from where it binds the RP, mediating the relationship between the $HEAD_{RC}$ and the RP. It is impornant to note that no comparison of competing derivations is involved here. As soon as the RP is merged, the movement strategy is ruled out (Frampton and Guttman, 2002; Lavine, 2003). In order for the derivation to converge, the operator merged in [Spec CP] position must be capable of binding the RP. Merchant (2004) argues that such operators must be caseless. Since overt wh-operators in Croatian are marked for case, the only option is to merge a null operator. The complete RC is then adjoined to the $HEAD_{RC}$.

What about the cases where RCs surface without the RP? I argue that these are derived in a radically different fashion – through movement. However, as we saw above, the movement strategy is only available under case matching between the $HEAD_{RC}$ and the RP. As mentioned before, I assume that the movement strategy in the derivation of *što*-RCs involves the matching analysis, on which the construction contains both an external and an internal head. The internal head moves from its base position to [Spec CP] of the RC, where following the merge of the $HEAD_{RC}$, relative deletion applies. The question then arises why the outcome is well-formed under matching, and ill-formed otherwise.

I propose that this is a consequence of the requirement that a non-defective v^0 assign/check accusative on an overt element.[6] Let us consider the derivation of the RC in (9) on the movement analysis. In the first step, the internal head of the RC, *ljubav* 'love' is merged with the embedded verb *osjetio* 'felt'. Upon the merge of the complementizer *što* 'what/that', the internal head raises to [Spec CP]. When the $HEAD_{RC}$ *ljubav* 'love' is merged with the RC, relative deletion takes place, deleting the raised internal head. Once the internal head is deleted, the

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[5] Here and elsewhere, I abstract away from the fact that the RP does not surface in its base position, but in the second position of the minimal clause that contains it. This is due to the fact that the RP is a clitic and is subject to the second position requirement that more generally holds of clitics in the language.
[6] I leave for further research the question of why this requirement should hold.

accusative case of the embedded v^0 is not overtly realized. The only element associated in some way with the embedded v^0 that remains overtly present in the structure is the HEAD$_{RC}$. Given that the two heads must be linked in some way for interpretive purposes, the HEAD$_{RC}$ may, in principle, serve also as the 'carrier' of the accusative case. This, however, is only possible when the morphological form of the HEAD$_{RC}$ does not clash with the accusative. In (9) it does not, given the syncretism of morphological forms between nominative and accusative in the paradigm of class III nouns in Croatian. Consequently, the derivation converges.

A question now arises as to how the need of the embedded v^0 to check its case feature on an overt element can be suspended until the higher structure is built and inspected for case matching?

I propose to tackle this problem by adopting a multi-dominance (MD) view of movement (Frampton, 2004; Gračanin-Yuksek, to appear; Vries, 2007). On this approach, a moved element is re-merged in a new position, rather than copied and then moved. In addition, I adopt Bachrach and Katzir's (2009) proposal that an element is exempt from spell-out until it is completely dominated, i.e. until it has a mother-node that is part of every path from the multiply dominated element to the root. On the assumption that the internal head moves in a cyclic fashion, it is first re-merged in [Spec vP]. This makes it multiply dominated and exempt from spell-out.[7] The internal head is then re-merged in [Spec CP], where it establishes a local relation with the HEAD$_{RC}$, upon which it is deleted. This relation includes checking both for semantic similarity (which allows for the deletion of the internal head) and the identity of the morphological form (which, if satisfied, makes it possible for the accusative of the embedded v^0 to be overtly realized). Note that this relationship holds between the HEAD$_{RC}$ and *all* occurrences of the internal head (where an occurrence is defined in terms of sister-nodes). Thus, even though the HEAD$_{RC}$ seems to be far away from the base position of the internal head, given the MD view of movement, it is in fact equally local to it as it is to the [Spec CP] position. This view of movement

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[7] Phase Impenetrability Condition (Chomsky, 2001) achieves the same effect, but crucially, because of the copy-theory of movement, on this view, the copy within the VP becomes invisible to further computation. On the MD view of movement, this is not so.

allows for the suspension of the requirement of the embedded v^0, without invoking look-ahead.

In the following section I present evidence that the absence of an RP in an object *što*-RC indeed indicates that such RCs are derived by movement.

4. No RP = movement

I present two pieces of evidence in support of the movement analysis of those object *što*-RCs which do not contain an RP: island effects, and the relativization of oblique-marked objects. With respect to the latter, object *što*-RCs show parallel behavior with free relatives (FRs) in the language, in that both seem to be derived by a non-movement strategy.

4.1. Island effects

Native speakers of Croatian are divided into two groups with respect to island sensitivity of *što*-RCs: for some speakers, they are sensitive to islands, while for some, they do not show island sensitivity. Thus, for some speakers, the example in (10), which shows relativization from an adjunct island, is well-formed.

(10) Ovo je čovjek [što Sanja plače [jer ga voli$_{acc}$ ___ .]]
    this is man.$_{NOM}$ [that Sanja.$_{NOM}$ cries [because him.$_{ACC}$ loves$_{acc}$ ___]]
    $^{??}$/*'This is the man that Sanja cries because she loves him.'

Importantly, if relativization in a *što*-RC proceeds out of an island an RP is obligatory even when the matching requirement is satisfied, as shown in (11).

(11) Vidim$_{acc}$ čovjeka [što Sanja plače [jer *(ga) mrzi$_{acc}$ ___.]]
    see.$_{1SG.acc}$ man.$_{ACC}$ [that Sanja.$_{NOM}$ cries [because him.$_{ACC}$ hates$_{acc}$___.]]
    $^{??}$/*'I see the man that Sanja cries because she hates him.'

The fact that in (11) an RP is obligatory despite the satisfaction of the matching requirement shows that there is a correlation between the presence of an RP and the absence of movement. This is taken as evidence that *što*-RCs without an RP are derived by movement, which is possible under matching only if it is independently allowed. If the

syntactic environment prevents movement, as is the case with islands, then the RC must be formed through a non-movement strategy, which includes the presence of an RP.

4.2. Relativization of oblique objects

Object *što*-RCs in Croatian pattern with FRs in the language with respect to the relativization of objects that bear oblique case. For concreteness, I use genitive in all the examples, but the same effect could be shown with other oblique cases. We will first see that FRs are normally derived by the movement of a wh-phrase of the FR (WH_{FR}). Surprisingly, however, they seem to be derived through a non-movement strategy when the relativized element is a genitive object. This will be taken as evidence that genitive marked elements cannot be relativized by movement.[8] We will then observe that in object *što*-RCs, if the relativized element bears genitive case, an RP is obligatory regardless of matching. This parallelism between FRs and *što*-RCs in terms of the relativization of genitive phrases supports the claim that the absence of an RP indicates that the RC is derived through movement, while its presence is an indication of a non-movement analysis.

4.3.1.   Croatian FRs: WH_{FR} moves

In Gračanin-Yuksek (2008), I argue that FRs in Croatian are derived through the movement of the WH_{FR} from within the FR to its [Spec CP] (contra Bresnan and Grimshaw, 1978; Citko, 2002; Larson, 1987 among others). Evidence for this claim comes from reconstruction effects, which I here illustrate by possibilities of A-binding in a FR.[9]

       Croatian has a subject-oriented possessive anaphor *svoj/-a/-e,* 'self's', which must be bound by the local subject under c-command. In the FR in (12), the anaphor *svoj* contained in the WH_{FR} must be bound by

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[8] This conclusion, however, cannot be generalized to all instances of wh-movement, as wh-phrases bearing genitive (and other oblique cases) may be freely fronted in wh-questions, as shown by (i).

    i.   Koga   si   se   bojao na fakultetu?
         who.GEN Aux.2SG REFL. fear   on college
         'Who did you fear in college?'

[9] For additional arguments for the movement-analysis of FRs in Croatian and the height of the final landing site of the WH_{FR}, see Gračanin-Yuksek (2008).

the subject of the FR, *Ivan,* and cannot be bound by the subject of the matrix clause, *Jan*. This indicates that the WH$_{FR}$ must reconstruct into the position where it is c-commanded by the subject of the FR, *Ivan.* This in turn argues that WH$_{FR}$ originates in the object position of the FR (underscored), from where it moves to the [Spec CP] of the FR.

(12) Jan$_j$ će pohvaliti [koje god svoje$_{i/*j}$ dijete Ivan$_i$ dovede __.]
    Jan$_j$ will praise [which ever self's$_{i/*j}$ child Ivan$_i$ brings __]
    'Jan$_j$ will praise whichever of his$_{i/*j}$ children Ivan$_i$ brings.]

4.3.2. Croatian FRs: Genitive WH$_{FR}$ does not move
If, however, WH$_{FR}$ bears an oblique case, then it cannot reconstruct. This is illustrated by (13). In (13), the anaphor contained in the genitive-marked WH$_{FR}$ *kojeg god svog psa* 'whichever self's dog' can be bound neither by the matrix subject *Vid*, nor by the embedded subject *Jan*. The fact that the embedded subject cannot bind the anaphor shows that WH$_{FR}$ does not reconstruct into the FR, unlike the WH$_{FR}$ in (12). WH$_{FR}$ in (13) seems to be externally merged in the position in which it surfaces.[10, 11]

(13) * Vid$_i$ se sjeća$_{gen}$ [kojeg god svog$_{i/j}$ psa
    Vid REFL remembers$_{gen}$ [which.GEN ever self's.GENi/j dog.GEN
    se Jan$_j$ bojao$_{gen}$.]
    REFL Jan feared]
    'Vid remembers whichever of his dogs Jan feared.'

As example (14) below shows, there is no general ban on genitive marked WH$_{FRs}$ in the language. FRs with a genitive WH$_{FR}$ are well-formed as long as no reconstruction is required. Thus, the ill-formedness of (13) is not due to the genitive case marking of WH$_{FR}$ *per se*, but rather to the impossibility of such WH$_{FR}$ to undergo movement in relativization.

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[10] Since anaphor binding in Croatian is impossible across a clause boundary, the lack of binding between the matrix subject *Vid* and the anaphor *svoj* in (**Error! Reference source not found.** indicates that this position cannot be within the matrix clause, but is most plausibly some left-peripheral position within the FR.
[11] What condition precludes fronting a WH$_{FR}$ that bears an oblique case is not clear to me at this moment. For our purposes, it is sufficient to show that such a condition exists, and that it holds of relativization of oblique objects in *što*-RCs as well, as we will see shortly.

(14) Vid se sjeća$_{gen}$ [kogagod   se   Jan bojao$_{gen}$.]
     Vid REFL remembers$_{gen}$ [whoever.$_{GEN}$ REFL Jan feared$_{gen}$]
     'Vid remembers whoever Jan feared.'

      In the next section we will see a striking similarity between FRs
discussed above, and *što*-RCs in which the relativized element is a
genitive object. In particular, we will see that in such *što*-RCs, an RP is
always obligatory, regardless of the matching requirement. As the
discussion of FRs above indicates, a genitive-marked WH$_{FR}$, since it
cannot reconstruct, does not undergo movement. If a genitive-marked
object in a *što*-RC cannot undergo movement either, it is not surprising
that such a RC is derived through a non-movement strategy, which
obligatorily requires an RP.

4.3.3.   Croatian što-RCs: RP obligatory with relativized genitive
In previous sections, we saw that an RP in an object *što*-RC is optional if
the RP and HEAD$_{RC}$ match in case. I argue that the absence of the RP is
tied to the derivational history of the RC – namely, that such a RC is
derived through movement, which is itself subject to matching. By
contrast, those *što*-RCs in which the RP is present are derived through a
non-movement strategy (contra Boeckx [2003]).
      Further, in the previous section we saw that an element bearing
an oblique case, more precisely genitive, cannot be relativized by
movement in a Croatian FR. Generalizing this property to all targets of
relativization that bear genitive, we predict that in a *što*-RC, if the
relativized element bears genitive case, the RC cannot be derived
through movement. Consequently, such RCs should *always* contain an
RP.[12] Crucially, as is the case with relativization out of an island, such

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[12] Interestingly, the same requirement seems to hold of RCs introduced by a
genitive-marked wh-operator. In (i), the anaphor *svoj* 'self's' can be bound
neither by the subject of the RC *Ivan*, nor by the subject of the matrix clause
Vid. In (ii), however, where the wh-phrase is case-marked accusative, required
by the minimally different verb *pamtiti* 'recall', the anaphor is bound by the
subject of the relative clause, which indicates reconstruction.

   i. $^{??}$Vid voli curu čijih   priča o   svom psu se   Jan sjeća.
         Vid loves girl whose.$_{GEN}$ stories about self's dog REFL Jan remembers

RCs should require an RP even under matching. This prediction is borne out, as shown by examples (15) and (16), which illustrate, respectively, formal matching in case and matching in morphological case only (genitive is syncretic with accusative in singular masculine nouns like *pas* 'dog'). Both examples require an obligatory RP, as predicted.

(15) Sjećam$_{gen}$ se   psa   [što si   *(ga)   se   bojao$_{gen}$ __]
     remember.$_{1SGgen}$ REFL dog.$_{GEN}$ [that Aux.$_{2SG}$ him.$_{GEN}$ REFL feared$_{gen}$ __]
     'I remember the dog that you used to fear.'

(16) Vidio$_{acc}$ sam   psa   [što *(ga)   se   boji$\check{s}_{gen}$ __ .]
     seen$_{acc}$ Aux.$_{1SG}$ dog.$_{ACC}$ [that   him.$_{GEN}$ REFL fear$_{gen}$ __ .]
     'I saw the dog that you fear.'

    Importantly, as the following example shows, it is not the case that genitive simply cannot satisfy the matching requirement. In (17), the HEAD$_{RC}$ bears genitive, while the RP bears syncretic accusative. The sentence is well-formed, since what undergoes movement on the movement account is not the HEAD$_{RC}$, but rather the internal head, linked to the accusative-assigning v^0.

(17) Bojim$_{gen}$ se   čovjeka [što si   (ga)   vidio$_{acc}$ __]
     fear$_{gen}$ REFL man.$_{GEN}$ [that Aux.$_{3SG}$ him.$_{ACC}$ seen$_{acc}$ __]
     'I fear the man that you saw.'

    The parallel behavior of FRs and *što*-RCs with respect to relativizaton of genitive marked elements shows that in neither case does the relativized element undergo movement. This is indicated by the absence of reconstruction effects in FRs, and by the obligatory presence of RPs in *što*-RCs. This is further evidence that *što*-RCs without an RP

     'Vid loves a girl whose stories about his dog Jan remembers.'

ii.   Vid$_i$ voli curu čije   priče o   svom$_{j/*i}$ psu Jan$_j$ pamti.
      Vid loves girl whose.$_{ACC}$ stories about self's dog Jan recalls
      'Vid loves a girl whose stories about his dog Jan recalls'

are indeed derived through a movement strategy, unlike the *što*-RCs in which an RP is present.

   Additional support for this claim comes from subject *što*-RCs which contain a genitive subject. Recall from (1) above that a subject *što*-RC parallels a subject wh-RC in that both require the site of relativization to be a gap. Given assumptions that I have adopted so far, this would mean that subject *što*-RCs are always derived by movement.[13] However, when the subject of a *što*-RC is genitive (as is the case in existential constructions), an RP is obligatory even in a subject *što*-RC, regardless of matching. This is shown in (18).

(18) Najeo$_{gen}$ se   sladoleda   [što *(ga)   je   bilo$_{gen}$ na stolu.]
    eaten$_{gen}$ REFL ice-cream.$_{GEN}$ [that him.$_{GEN}$ Aux.$_{3SG}$ been$_{gen}$ on table]
    'He has eaten to the fullest the ice-cream that there was on the table.'

   The discussion in this section has shown that whenever movement, which leaves a gap, is (for whatever reason) unavailable in a *što*-RC, the site of relativization must be occupied by an RP. This lands strong support to the claim that (subject and object) *što*-RCs in Croatian may be derived by two strategies: a movement strategy (resulting in a gap) and a non-movement strategy (resulting in an RP).

5. Conclusion

I argued that Croatian object *što*-RCs may in principle be derived in two ways, depending on whether they do or do not contain an RP. Those RCs that do contain an RP are derived by a non-movement strategy, while those RCs that do not contain an RP are derived by a movement strategy.

   Evidence for this claim comes from island effects and from the obligatory presence of RPs in object *što*-RCs in which the relativized element is an oblique phrase (illustrated throughout the paper by genitive). We have seen strong correlation between the impossibility of movement and obligatory presence of an RP, which argues that the

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[13] Movement in subject *što*-RCs is exempt from the matching requirement that holds of object *što*-RCs. Presumably this is because unlike v^0, T^0 does not seem to have to assign/check nominative on an overt element. This is consistent with the observation that Croatian is a subject- but not an object-drop langauge.

absence of an RP indicates that movement has taken place.

Finally, I showed that movement in an object *što*-RC is subject to a case matching requirement: a condition that the HEAD$_{RC}$ and the RP match in case. We have seen that formal identity in case is not necessary; rather, the matching requirement is satisfied even through case syncretism. I have suggested that the matching requirement has roots in the condition that non-defective v^0 assing/check accusative case on an overt element, coupled with an MD view of movement and its consequences for the spellout.

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