Whoever that likes relatives

Whoever that likes relatives…

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Abstract
In this paper we will deal with some aspects of free relative clauses (FRC) in English, showing that there are certain differences between restrictive relative clauses (RRC) featuring *whoever* on the one hand and *whichever* / *whatever* on the other in terms of both their syntax and their semantics. In particular, we will focus on solving a long-standing puzzle that involves paradigms where the opposite of what the venerable **that-t* filter would predict obtains.

1. Introduction: overview

Consider to begin with the following examples:

(1) a. Whoever leaves last must turn the lights off. = INDEFINITE
b. Whoever that leaves last must turn the lights off. = INDEFINITE

(2) a. Whoever Bill likes will get the scholarship.
b. Whoever that Bill likes will get the scholarship.

(3) a. *Whoever that likes Bill will go out with him.
b. Whoever likes Bill will go out with him.

(4) *I'll buy whatever that he's selling.
(adapted from McCawley 1998: 455)

(5) Whatever difficulties that she should encounter, she'll solve them.

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The only difference between the (a) and (b) examples in (1–3) is the presence of an overt COMP *that*. Provided that in contemporary generative grammar the head C / COMP must be present regardless of whether it is phonologically manifested or not (because the features in C play a number of roles in the derivation), in principle we would expect no syntactic differences between *that* and *that*-less relative clauses. However, as has been extensively studied, in some dialects of English there is a condition against subject extraction across an *overt* COMP, the so-called **that-trace filter* (Perlmutter 1968: 204; Chomsky & Lasnik 1977: 451):

(6) *[$_{S'}$ *that* [$_{NP}$ *e*] . . .], *unless S' or its trace is* [sic] *in the context:* [$_{NP}$ NP ___ …]

It is crucial to note that, even if the filter was as robust as the early literature would have us think, it does *not* imply that subject extraction across a *covert* COMP (~~that~~, Ø, …) will result in a grammatical string; however, it is not clear how the grammar would remain consistent if both configurations (7a) and (7b) had to be excluded selectively:

(7) a. [NP$_i$ … [$_{S'}$ *that*[$_S$ *e*$_i$…]]
b. [NP$_i$ … [$_{S'}$ Ø [$_S$ *e*$_i$…]]

Here we will present paradigms where configuration (7b) (which we will refer to as a *contact relative clause*, following Jespersen 1933: Chapter XXXVI, §34.3) results in ungrammaticality and configuration (7a) results in a grammatical and acceptable sentence, the mirror image of what is conventionally held to obtain for English.[1] We will argue that there are syntactic and semantic reasons to refine the locality conditions that restrict reordering transformations in relative clauses, and to revisit the structural descriptions that are adequate for different kinds of free relatives.

2. Free relatives, transparent relatives, and (mostly) everything in between

We need to distinguish two main kinds of antecedent-less relative clauses for the first part of this paper:

[1] I want to thank Barry Schein for putting up with me badgering him about this observation some 40 years ago. His encouragement and comments have kept this going as an earworm all this time [JDS].

A. Free relative clauses, including
   i. Bare *wh*-relatives
   ii. *Wh-ever* relatives
B. Transparent relative clauses

Let us now very briefly summarize some aspects of the syntax and semantics of relative clauses. For purposes of this paper, it is essential to ask whether the *wh*-element has been reordered outside a cyclic node or not[2]; this restricts the class of constraints that can be invoked to account for the data. In this respect, there are two main proposals: in one, the *wh* is inside the maximal projection that is identified with the relative clause (say, CP / S'), as in Jacobson (1995), Hirschbühler (1976), among many others; there is no reordering that crosses a cyclic node (see also McCawley 1998: Chapter 13). In the other, the *wh* does not belong to the maximal projection of the free relative, but rather occupies a position in the NP which the free relative modifies (e.g., Bresnan & Grimshaw 1978; Larson 1987 1998), thus crossing a cyclic node via either reordering (Kayne, 1994) or indexing (since the relative pronoun still has a grammatical function inside the CP; *subject* in the examples below). Both options are schematized below:

(8) a. $[_{NP}$ Ø $[_{CP}$ who(ever) thinks John is funny]]
wouldn't know a joke if it hit him over the head.
b. $[_{NP}$ who(ever) $[_{CP}$ thinks John is funny]]
wouldn't know a joke if it hit him over the head.

As usual, the specifics vary (see, e.g., Grosu 1994; van Riemsdijk 2017 for discussion), but this is a good enough approximation. In order to make a proper separation between these two proposals, we have taken into consideration D-Structure, before any movement rule applies. This is done for illustrative purposes, since if relative pronouns move from Spec-C to NP (as in Kayne 1994), and we looked at the structure *after* that movement, then it wouldn't be particularly easy to make a proper distinction between these two proposals (see also Izvorski 2000: Chapter 1 for discussion).

[2] This cyclic node, in the nominal domain, will be assumed to be NP. However, as a reviewer pointed out, there are arguments to claim that DP is the relevant cycle (e.g., Grosu 1994; Huddleston and Pullum 2002): the structure would then go along the lines of (i):

i) [DP Ø [CP *Op*…]]

Here we will use NP to refer to a nominal cyclic node without further ado.

We also need to consider aspects of the semantics of antecedent-less relatives. Bare *what* free relatives get a *definite* or *universal* reading rather than an indefinite reading (Jacobson 1995; Wilder 1998):

(9) What you ordered is on the desk.
(= the thing(s) which you ordered, ≠ something you ordered)

Wh-ever free relatives, on the other hand, have an *indefinite* reading (Jacobson 1995: 454):

(10) Whatever books he defaced were priceless.
(= any books he defaced,
≠ the specific books he defaced) (McCawley 1998: 457)

(11) John will read whatever Bill assigns.
(= anything Bill assigns) (Jacobson 1995: 457)

The third kind of free relative structure we need to consider, apart from *bare-wh* and *wh-ever* relatives, are *transparent relative clauses*. Transparent free relatives (henceforth TFR; Kajita 1977; Wilder 1998; McCawley 1998: 757–758; van Riemsdijk 2000; Grosu 2002) have the form of *wh-* free relatives, but always contain a predicative structure inside, with the *wh-* operator being displaced from a small clause-like structure:

(12) Mary presented [what$_i$ appeared to be t_i a radical new proposal].

Transparent free relatives are *endocentric* in the sense that there is a predicative XP that determines the distribution of the whole construction, such that [what you might call stupid] has *adjectival* distribution: thus, it cannot appear in subject or object position:

(13) a. *[What you might call stupid] just walked in.
b. *I won't tolerate [what you might call stupid].

However, it can appear as a nominal modifier or a predicative expression:

(14) a. A [what you might call stupid] decision can ruin your life.
b. John is [what you might call stupid].

Note, incidentally, that identifying all free relatives as CPs without further considerations would obscure this distributional fact.

We can now start comparing the three kinds of antecedent-less relative clauses we have identified so far. TRF can appear in *there*-existentials, but garden-variety free-relatives cannot:

(15) There is $\left\{ \begin{array}{l} what\ you\ might\ call\ food \\ *\ what\ you\ bought\ yesterday \end{array} \right\}$ on the table

In this respect, *wh-ever* relatives behave more like TFR than garden-variety free-relatives:

(16) There is [whoever Bill likes] at the door.
(OK only in a definite reading)

(17) There is [whatever you cooked yesterday] in the fridge (idem ant.)

Ever-relatives, possibly due to their indefinite interpretation, allow for a restrictive relative clause taking the whole *ever*-relative as an antecedent:

(18) Whoever Bill likes that is not a complete idiot
will get the scholarship.
(= any person who Bill likes who is not a complete idiot,
≠ any person who is not a complete idiot)

(19) Whoever likes Bill that is desperate for a date will go out with him
(= any person who likes Bill who is desperate for a date,
≠ any person who is desperate for a date)

However, not all *wh-ever* relatives behave the same. Consider the contrast between (20) and (21):

(20) John read whatever Bill assigned - although I don't remember what it was, but I do know that it was long and boring. (Jacobson 1995: 457)

(21) ?Whoever$_i$ Bill likes will get the scholarship –I'm sure he$_i$'s a smart chap

Initially, we could make the following (rather coarse-grained, admittedly) tripartite classification (see also McCawley 1998: 454, ff. for a discussion of the differences between bare-*wh* free relatives and *wh–ever* free relatives):

Transparent free relatives (TFR):
(adapted from Wilder 1998: 192; see also van Riemsdijk 2000; Grosu 2002: 156)
- Indefinites (thus can appear in indefinite-only positions)
- Plural agreement possible with bare *what*
- *wh*-phrase can only be bare *what*
- Endocentric

Type 1 free relatives (FR 1):
- Definites
- Singular agreement with bare *what*
- *wh*-phrase can (but need not) be *wh-ever*
- Exocentric (sort of)
- Strong islands

Type 2 free relatives (FR 2):
- Indefinites
- *wh*-phrase is always *wh-ever*
- Weak islands

In the remainder of this paper, we will focus on some puzzling properties of FR 2, particularly related to the *wh*-operator of choice and consequences that this choice has for the syntax and semantics of free relatives, including aspects of locality and quantification. We will see that all Type 2 free relatives are equal, but some are more equal than others…

3. No man is an island; [whichever of the men] is, too

As is well-known, FR 1 generate island effects, which can be blamed on either (i) a violation of Ross' (1967: 127) Complex NP Constraint[3] if FR 1 are considered to be adjuncts to NP (a position defended in Bresnan and Grimshaw 1978 and much subsequent work) or (ii) *wh*-island effects if

[3] *The Complex NP Constraint*
No element contained in a sentence dominated by a noun phrase with a lexical head noun may be moved out of that noun phrase by a transformation (Ross 1967: 127).

the operator in FR is considered to be an interrogative pronoun (McCawley 1998: 455, ff.; see also Schiel 2018 for some related discussion). Some relevant examples follow:

(22) *The student$_i$ that Mary invited whoever likes t_i (Wilder 1998: 194)

(23) *Which student$_i$ did Mary invite whoever likes t_i?

(24) *Which student$_i$ did whoever Mary invited t_i pass the test?
(intended: whoever Mary invited, that student passed the test, I want to know which student it was)

In contrast, TFR do not always constitute strong islands, unlike restrictive relatives or garden-variety *wh*-free relatives:

(25) The professor who$_i$ I met [what you might call a fan of t_i]
(TFR)

(26) *Who$_i$ did you meet the professor [that was the advisor of t_i]?
(Restrictive RC)

(27) *Who$_i$ is [what you bought for t_i] on the desk?
(FRC 1)

Less clear are the facts regarding the reordering of constituents *within* the relative clause (as opposed to extracting something *from* the relative clause). Recall that we very briefly summarized three positions about the internal structure of relative clauses: (i) there is cyclic movement of what we will call the *wh-operator*[4] to COMP, (ii) post-cyclic movement to NP (which dominates COMP), or (iii) base-generation on NP and indexing of an empty operator in COMP. We will leave the base generation proposal aside for this paper, because it does not allow us to test constraints on extraction (because in a base-generated approach there is no extraction and wherever is the fun in that). So, we will assume that there is a reordering rule applying in the cases that interest us so as to have something to poke with a grammatical stick. Consider, to begin with, the following paradigm:

[4] Transparent free relative intended.

(28) a. [Whoever likes Bill] stole the car
b. *What$_i$ did [whoever likes Bill] steal t_i?
c. What$_i$ did [whoever that likes Bill] steal t_i?

There is something curious about this paradigm, and that is that whatever causes the difference between (b) and (c) cannot pertain to the relation between *what* and its trace, because that relation is identical in all structural aspects in both sentences. It seems that we need to look at the free relative closer:

(29) a. [whoever likes Bill]
b. [whoever that Ø likes Bill]

Following Gazdar (1981: 161) and George (1982: 80), we will assume that there is no movement of *whoever* in (29a), because such movement would be vacuous: there is, to our knowledge, no theory-independent way of distinguishing between (30a) and (30b) at least in English if COMP = Ø:

(30) a. [$_{S'}$ Subj$_i$ COMP [$_S$ t_i …VP]]
b. [$_{S'}$ COMP [$_S$ Subj …VP]]

However, in (29b) there is at least one reason to think some reordering has taken place: the overt COMP *that* appears between the subject and the verb. Assuming that COMP itself cannot move (because there is no structural place to which it could do so, or because its trace would not be properly governed; this does not concern us now), we need to account for the fact that the subject appears now before (and, by assumption, above) COMP. In order to do this, we assume further that the Ø in S is identified as the trace of *whoever*. A preliminary approach to the relevant configuration thus looks like this[5]:

(31) [$_{S'}$ whoever$_i$ that [$_S$ t_i likes Bill]]

[5] A reviewer has pointed out that (31) is the kind of configuration banned by the *Multiply Filler COMP* Filter (MFCF; Chomsky and Lasnik, 1977), by virtue of having an overt *wh*-operator and an overt C head. This is an interesting puzzle, since it is in principle possible to (i) multiply the CPs / S's and thus avoid the MFCF violation (as done in, e.g., Donati and Cechetto 2011), or (ii) assume that *whoever* in (31) is in N and not within the S' which defines the FRC.

Which is *exactly* the kind of configuration that is predicted to be ungrammatical by the **that-t* filter (regardless of the structural position of *whoever*, there is displacement/indexing crossing an overt COMP). We can provide some further examples of this puzzling phenomenon in the pair (32a-b)[6]:

(32) a. *Whatever difficulties should present themselves to her, she'll solve them.
b. Whatever difficulties that should present themselves to her, she'll solve them.

Remarkably, the situation illustrated by (32) is the mirror image of the paradigms that **that-t* was created to describe.

Let us take a look at what happens when the *wh-operator* is the *object* of the relative clause:

(33) Whoever Bill likes stole the car.

(34) a. What did whoever Bill likes steal?
b. ?What did whoever that Bill likes steal?

Here things are more or less as expected, with the version with an overt COMP being degraded with respect to the empty-COMP version. We thus have a conundrum in our hands.

3.1 Whatever the plot, it thickens

Recall that we, following the literature, said that FR 1 generate island effects. Also, that FR 2 behave differently from FR 1. But just how differently? In order to properly address this question, we need to consider the full paradigm of forms that can appear in these configurations. We have nominative forms,

[6] It may or may not be relevant to note that (32a) is perfect without *to her*, and (32b) is ungrammatical without *to her*. At least one of the authors has proposed that there are in fact two verbs written *present* in English, homophonous but distinct syntactically and semantically. Only one of those allows for a *–self* complement (in fact, it is required); we are talking about that one in (32). For purposes of looking at the mirror **that-t* effect this note may or may not be relevant, but now we have a clean conscience.

(35) Whoever (that) likes Bill…

…and accusative forms,

(36) Who(m)ever (that) Bill likes…

…both of which are arguments (subjects and objects, respectively). However, is it possible to have *wh-ever* forms as *modifiers*? It would seem so, in the light of examples like

(37) *Whosever book* this is better come up and claim it

(38) *Whoever's idea* it was to do this game mode you need a raise sir[7]

(39) *Whosever room* this is should be ashamed! (from 'Messy Room', by Shel Silverstein)

These sentences feature not just one, but *two* variants of genitive *wh-ever*, where they modify a noun. In these cases, the *wh-ever* denotes the possessor of the entity denoted by the N. From the perspective of the theory of locality and phrase structure, it is interesting to note that the referential index of the FRC is given by the *wh-ever* element, *not* by the N (*book*, *idea*, and *room* in (37), (38), and (39) respectively). As a matter of fact, if we try to give the FRC the N's index, the result is ungrammatical:

(37') **Whosever book* this is is a first edition

(38') **Whosever idea* it was to do this game mode was discussed at a meeting
(ungrammatical if what was discussed was the idea to do the relevant game mode)

(39') **Whosever room* this is has dirt in the corners

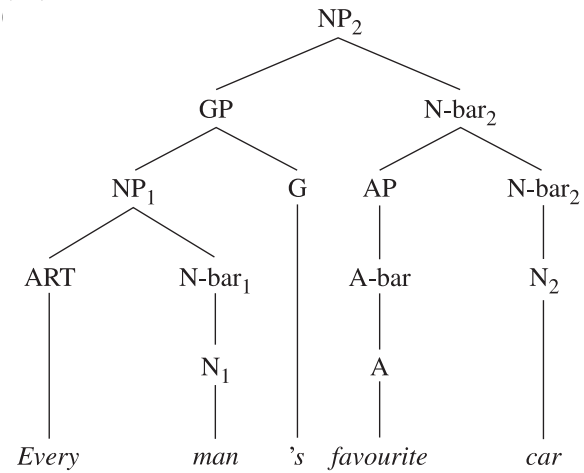
An obvious question to address at this point is, 'what kind of structural description captures this behaviour?' The answer is far from trivial. Whereas the cases analysed above, with *whoever* and *whatever*, may

[7] https://www.reddit.com/r/Pacybits/comments/akbz9h/whoevers_idea_it_was_to_do_this_game_mode_you/

receive a straightforward analysis in which the *wh-ever* element is the head of the subject / object NP, an extension of this analysis to *whosever / whoever's* directly clashes with a big part of the literature on the syntax of genitive phrases. We may cite some examples:

> *In the preposed construction* [e.g., *John's friend*]*, the genitive phrase is generated as* ***an NP in spec position*** *within the containing NP: [$_{NP}$ NP N] - and is assigned genitive Case by virtue of this position* (Lyons 1985: 125. Our highlighting)

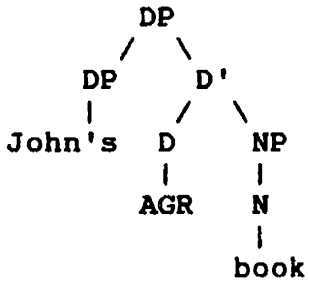
A similar representation is proposed in Vikner & Jensen (2002)
(40)



(Vikner and Jensen 2002: 193)

Once again, the genitive phrase is the specifier of the NP whose head determines the referential index of the construction; in the example provided in Vikner and Jensen, this index percolates from *car*, all the way up to NP (they keep track of the indexes by assigning integers to the NPs). We can trace the idea that genitives are DP/NP specifiers back to Abney's influential (1987) thesis, where genitive agreement was a Spec-Head relation:

(41)



(Abney 1987: 25)

It is important to note that in Abney's representation, the 'matrix' DP is a projection of AGR, which in turn takes the referential index from *book*, with the genitive DP *John's* being the specifier of AGR. In Abney's terms, the DP is the *s-projection* ('semantic projection') of *book*, where '*A node's s-projection path is the path of nodes along which its descriptive content is "passed along"*' (Abney 1987: 57). Formally, (Op. cit.)

> *β is an s-projection of α iff*
> *a. β = α, or*
> *b. β is a c-projection of an s-projection of α, or*
> *c. β f-selects an s-projection of α*

In the structures under consideration, the highest DP/NP label is always an *s-projection* of a lexical N which is assigned Case independently, never of the genitive phrase. But examples like (37–39) pose an interesting challenge to these structures.

Note that in all three examples the predicate refers back to the *who* (i.e., the possessor), not to the N (i.e., the possessed). This seems to argue against a structure in which the possessor *whosever* is in a specifier position, as it would be inaccessible: the referential index percolates to the phrasal level from the head of the phrase, not from the Spec (as in Abney's *s-projections*); that is the gist of an endocentric structure. We can flesh this observation out a bit. If the relation between the *wh-ever* form and the V was to be modelled in terms of Agreement (Chomsky 1986, 1995, and much related work), then *stricto sensu* we would be in the presence

of 'Spec-Head' agreement… but with the not-so-small caveat that it is not a head agreeing with *its* specifier, it's a head (the V) agreeing with *its subject's specifier* (in purely configurational terms, the *specifier* of a *specifier*). The Spec of a Spec should not be visible for the head of the XP of whose Spec we are talking about. It cannot be an instance of agreement under government either (since a head does not c-command its Spec). And even if we ventured into the realm of Reverse Agree (Zeijlstra 2012; Wurmbrand 2014), it still does not explain how we *require* a dependency between the V and the specifier of its specifier specifically in the case of *whosever* / *whoever's* but not in the others. Too many problems.

To add insult to injury, we may also point out that the configuration that would arise violates -at least- the following conditions / constraints / filters:

Strict Cycle	(Chomsky 1973)
A-over-A	(Chomsky 1964, 1973; Bresnan 1976)
Minimal Link	(Chomsky 1995)

And possibly some others (e.g., *i-within-i*, depending on the specific definition).

Just to be perfectly clear: The cases we are looking at are the equivalent of having the NP in (42):

(42) Every man's favourite car

as a subject in a wider structural context, like (43)

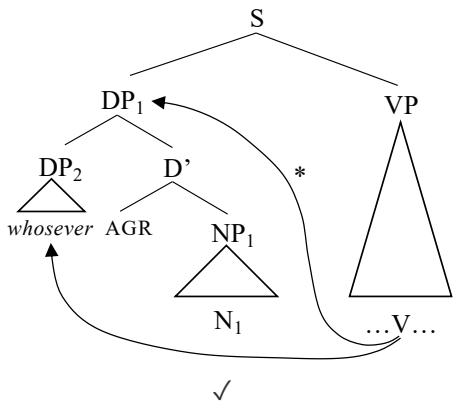
(43) *Every man$_{\text{POSSESSOR}}$'s favourite car$_{\text{POSSESSED}}$ loves a smart woman

where, of course, the lover is *every man*, not his favourite car (if we allow *car* to be the subject of *loves*, then the judgment should be #, not *). (43) is parallel to (43'), repeated from above:

(43') Whosever$_{\text{POSSESSOR}}$ room$_{\text{POSSESSED}}$ this is should be ashamed

The relevant dependencies can be illustrated as in (44):

(44)



In (44), DP_1 is the *s-projection* of N_1 (NP_1 being its *c-projection*). If we are to follow the authors cited above in their syntactic account of genitive phrases, then we would be forced to say that *whosever* / *whoever's* must generate in DP_2, the Spec of DP_1, with all concomitant accessibility issues.

We can examine the structure of *wh-ever* FRC in more detail, and ask whether all indeed receive the same structural description. One possible solution, which we will briefly toy with, would be to assume that all *wh-ever* constructions have the same structure, in which the quantificational requirements of *wh-* are met within its own minimal phrase, without the need to take an N complement. This approach flips the story around, because in this case it is the N (book, room, etc.) that needs to be adjoined to the NP headed by *wh-ever*.[8] The theory that the categorial and semantic head of the highest NP (i.e., its *c-* and *s*-head) is *wh-ever* would also predict that in

(45) Whichever game you buy will be overpriced.

(46) Whatever stunt you're planning won't end well.

[8] We hear the reader ask: '*why adjoined and not be a complement?*' Let us try to sketch an answer to that perfectly legitimate question. If, as we are suggesting, the quantificational requirements of *wh-* are satisfied *within* the *wh*-complex *wh*+N+ever, then it didn't make much sense to us to have a complement position, which are usually reserved for arguments and other valency-satisfying objects.

The subject of *will be overpriced* is *whichever*, not *game*; and the subject of *can't end well* is *whatever*, not *stunt*. In other words,

(47) $[_{NP}\ [_{N}$ whichever$]\ [_{NP}$ game$]]$ *and not* $[_{NP}\ [_{NP}$ whichever$]\ [_{N}$ game$]]$

(48) $[_{NP}\ [_{N}$ whatever$]\ [_{NP}\ \emptyset]]$ *and not* $[_{NP}\ [_{NP}$ whatever$]\ [_{N}\ \emptyset]]$

Note that we are still assuming that all relative clauses receive the same structural analysis. However, this is too strong a hypothesis, in the light of the contrast between (49) and (50):

(49) Whosever movie plays at the Avon makes a lot of money, …
  a. …be it Robert De Niro's, Al Pacino's, or Anthony Hopkins'.
  b. …*be it Taxi Driver, The Godfather, or Silence of the Lambs.
  (see also Šimík 2018a, b)

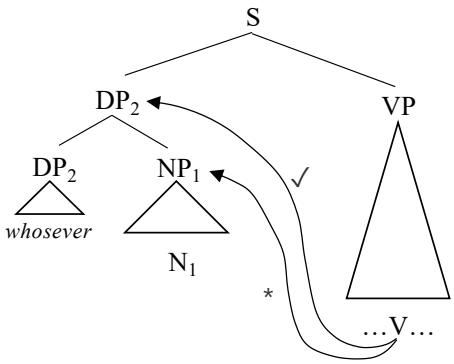
In this respect, *whosever* / *whoever's* differs from *whichever / whatever*:

(50) Whatever movie plays at the Avon makes a lot of money, …
  a. …be it Robert De Niro's, Al Pacino's, or Anthony Hopkins'.
  b. …be it Taxi Driver, The Godfather, or Silence of the Lambs.

Note that *whosever* only allows for one reading: that in which the predicate pertains to the possessor and not to the possessed. *Whatever* / *whichever* behave differently, allowing for both readings. Modifying our assumptions about what FR 2s are *s*- and *c-projections* of while holding the assumption that all relative clauses are structurally identical (i.e., that *whoever* and *whatever/whichever* clauses have the same underlying phrase marker) wreaks havoc elsewhere in the grammar. It seems thus to be the case that *whosever* / *whoever's* FR cannot receive the same structural analysis as *whatever* / *whichever* FR. We can now explore what happens when the assumption of structural identity between RRC is ditched.

Let us retrace our steps briefly: the problem with *whosever* was that it cannot be generated as a specifier of the highest NP; it needs to be its head. Revising the tree in (44) in this light gives us a structural description along the lines of (51):

(51)



This structural description is rather coarse as a semantic analysis, but it should suffice for our present purposes. The aim, adopting a syntactic perspective, is to show that it is not entirely implausible that *whichever* / *whatever* FR and *whoever* FR do not receive the same structural description.

From the point of view of locality effects, we may note the following contrast:

(52) Whichever you buy of those games will be overpriced.

(53) *Who(m)ever I have a crush on of these women already has a boyfriend.

Whichever / *whatever* may appear in a partitive construction, and may also be reordered without incurring a violation of the *Left Branch Condition* (Ross 1967: 207). *Who(m)ever*, on the other hand, cannot appear in the same configuration, as shown in (53). A more detailed look to the distributional differences between *whatever* / *whichever* and *whoever* is thus required. For convenience, we will now start referring to '*whoever* relatives' to cover free relative clauses whose operator is *whoever*, *whomever*, *whosever*, or *whoever's*, and use '*whatever* relatives' as an umbrella term covering free relative clauses featuring *whatever* or *whichever*.

The differences between *whoever* relatives and *whatever* relatives seem to extend beyond the phrase marker that best captures their properties. *Whatever* relatives come in two semantic flavours: *definite* and *universal*

(Elliot 1971; Šimík 2018b); of these, only *definite* RC can become the pivot of a cleft sentence. The reading can be forced one way or the other by manipulating temporal and aspectual features, as in the following examples from Šimík (2018b):

(54) a. Whichever movie (it is that) is now playing at the Avon is making a lot of money.
≈ **The movie** that is now playing at the Avon is making a lot of money.
b. Whichever movie (*it is that) plays at the Avon makes a lot of money.
≈ **Every movie** that plays at the Avon makes a lot of money.

The question now is, wherever do *whoever* relatives come from such that they present the properties they do?

Whoever relatives, we argue, derive from pseudo-cleft sentences at a rather deep structure. Before the reader raises up in arms, we are fully aware of the fact that (55) is ungrammatical as a pseudo-cleft:

(55) Whoever (*it is that) plays at the Avon makes a lot of money.

But *clefting* seems to be required to account for the semantics of *whoever* relatives in the cases we have examined in this paper. The observation that inspired this work, which goes back to the 80's, was an unexpected preference for *that*-relatives over contact relatives with *whoever*. We may now ask where it is that that that that appears in those relatives[9] comes from… and in order to answer this question, we need to look at a full paraphrasis of the relevant sentences (in what follows, italicised pronouns are used *à la* Montague 1973, Rule S_{14}):

(56) a. Whoever$_i$ it is such that Bill likes *him*$_i$ will win the prize.
b. Whoever$_i$ it is such that *he*$_i$ likes Bill will win the prize.
c. *Whoever$_i$ it is *he*$_i$ likes Bill will win the prize.
d. *Whoever$_i$ it is Bill likes *him*$_i$ will win the prize.

What we would like to put forth is that that that comes from the derivational remnants of a pseudo-cleft (see also Higginbotham 1984, 1985). If there is

[9] See also Hudston (1972).

no cleft, there is no *that*, and the sentence is ungrammatical (56c, d), in this case we cannot just pull a *that* out of a hat to yield (56 c' and d'):

(56) c'. Whoever$_i$ that *he*$_i$ likes Bill will win the prize.
d'. Whoever$_i$ that Bill likes *him*$_i$ will win the prize.

If there is a *that*, it must come from somewhere. But not just anywhere. An important consequence of our analysis is that, if that *that* is not a relative COMP, then it cannot be freely deleted like other COMPs in the context $[_{NP} \ldots [_{S'} that \ldots]]$ (an operation that Ross 2012:10 refers to with the rather self-explanatory name *That-deletion after a head noun*).

The derivations proposed here also make interesting predictions for the semantic differences between *whatever*-relatives and *whoever*-relatives. Consider the following generalisation pertaining to the interpretation of scope in *wh*-quantifier interactions:

> *A quantifier can be interpreted as wide w.r.t. a wh-term in matrix COMP if the quantifier (i) c-commands the wh-trace and (ii) is within the governing category of the wh-trace* (Sloan 1991: 228)

For all present intents and purposes, the reader may substitute 'governing category' in the quotation above with 'cyclic category' (or even 'phase'); the second clause of the generalisation invokes locality which transcends models.

Now, recall that we have identified the following ambiguity (following Šimík 2018a, b):

(50') Whatever movie plays at the Avon makes a lot of money, …
a. …be it Robert De Niro's, Al Pacino's, or Anthony Hopkins'
b. …be it Taxi Driver, The Godfather, or Silence of the Lambs

We also noted that this ambiguity does not arise in *whoever*-relatives: we would like to suggest that this is a consequence of combining the structural descriptions proposed here for *whatever*-and *whoever*-relatives with Sloan's Scope Statement (SSS). If the derivation of *whoever*-relatives goes along the quasi-Higginbothamian lines sketched above, then the *wh*-operator is excluded from the cycle where scope should be reconstructed for the ambiguity to arise (i.e., the complement of *such that*…, an embedded COMP). This predicts, in consonance with observations in the

literature, that *whoever*-relatives should not be scope-ambiguous. But since whatever-relatives are not related to clefts, the SSS is respected and there is a scope ambiguity between the possessor and the possessed (note that the SSS states that a quantifier *can* be interpreted as having wide scope with respect to a *wh*- if conditions (i) and (ii) hold, not that it *must*); it can be bound in either position, because the *wh*-operator and the NP it quantifies over belong in the same cyclic domain.

To summarise, our analysis makes the following two points:

- *Whoever* is not a specifier of an NP headed by an empty N. In this respect, *whoever* relatives differ from their argumental siblings *whichever* and *whatever* relatives: only the latter can take N complements.
- The semantic interpretation of *whoever* relatives involves a pseudo-cleft structural description; this has consequences for the syntax in terms of the phrase marker that is assigned to these structures.

We would like to think that a combination of these two points effectively accounts for the reverse **that-t* effects first observed by Saddy some 40 years ago, and thus the present paper can provide appropriate grammatical closure.

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